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OCTOBER, 1889.

WITH the thought of October comes the vision of crisp, juicy, rosy-cheeked Apples, and long, golden ears of Corn, plump, brown nuts, and the bright-hued foliage of the Maples and the Virginia Creeper. In this climate October sees the ingathering of the latest products of the field, the garden and the orchard; at this time, too, we make preparation to shelter the more tender vegetation that is to endure the winter, and do much work in preparation for spring. Where the canes of Raspberries, Blackberries and Grape vines are tender they should be protected, and the practical way is to bring the tips of the shoots to the ground and retain them there, either by a spadeful or two of dirt laid on them, or by pegging them down and then covering with fallen leaves or straw, and perhaps a little soil strewn over all. In the same way Rose bushes are sheltered. Spinach sown last month will need protection before winter, and this is best given by placing branches or boughs of trees over the rows or beds of plants and throwing litter or straw over them, and a little soil over all to hold in place. For this work preparation should be made this month and everything be in readiness when demanded, but it is best to delay such covering to as late a time as possible, even to the last of November. Strawberry plants do not need to be entirely cov-

ered, but, if leaves or straw be placed between the rows and close about the plants, they are sufficiently protected. The best time to do this is after the ground first freezes hard. The litter then holds the frost in the ground and prevents the frequent thawing and freezing, such as the bare soil is subject to. Delay giving protection as above mentioned to as late a time as possible, but be sure and have everything ready for it when wanted.

It is a convenient time for doing a great deal of transplanting in the gardens and other grounds. There is no better season for lifting and resetting most kinds of hardy herbaceous perennial plants, and as among these are some of the finest attractions among flowering garden plants, those who are deficient in them should not delay to stock their grounds with the best of them, and those that bloom at the different seasons. But few of our readers are not advised what these are, still, a mention of them at this time may recall some that would otherwise be forgotten or overlooked. As one of the sweetest, the first that may be mentioned is the Violet; there should be a good supply of them, and of different colors, but the single dark blue, *Viola odorata*, the common English Violet, should especially be selected as one of the most desirable. Among fragrant flowers none

are sweeter than the Pinks, and every garden should have plenty of these planted along walks, or where they can be easily reached. Lily of the Valley is another fragrant favorite not to be neglected. Aquilegias of various kinds, sweet of scent and of beautiful form, will give their bloom at somewhat different seasons.

A most valuable and reliable midsummer blooming plant, that is as hardy as an Oak, and whose flowers are as fragrant as Orange blossoms, is the White Day Lily, *Funkia alba*; makes a fine clump standing alone on the lawn,

The Yellow Day Lily, *Hemerocallis flava*, is beautiful, very fragrant, hardy and thrifty, and should be generally grown. For one of the most graceful and showy plants, blooming the last of spring, nothing can exceed the Bleeding Heart, *Dicentra spectabilis*. For the same season, too, there is the Japan Spiraea, or *Astilbe Japonica*, and later comes the Queen of the Prairie, *Spiraea lobata*, and Pride of the Meadow, *S. filipendula*, and the double Meadow Sweet, *S. ulmaria*, all of which are quite desirable. Every garden should have a variety of the many kinds of beautiful Irises. The German and the Japan Iris have each so many varieties of surpassing beauty that the cultivation of them alone would be a most refined and attractive pursuit. These flowers are of exceeding beauty, and yet but few are acquainted with them.

For show in the garden as masses of bloom, nothing can be superior to the Perennial Phlox, and this has so many varieties that bloom at different times, a succession of flowers can be had from early to late summer and far into autumn.

For autumn bloom there must, of course, be a good supply of Japan Anemones; nothing else can fill their place.

Delphinium formosum and other kinds of Chinese Larkspurs have their own individuality and cannot be omitted from a good flower garden.

Those who will can gratify their taste by selecting a still greater variety, such as the Catchfly, species of *Saxifrage*, *Salvia*, Lungwort, *Pyrethrum*, *Pentstemon*, scarlet *Lychnis*, Perennial Pea, *Tradescantia*, *Tricyrtis*, *Valerian*, *Veronica*, *Sedum* of many varieties, *Dictamnus* or *Fraxinella*, *Centaurea*, Daisy, &c. This region of perennial plants is a very broad

one, and those who are seeking an acquaintance with the vegetable kingdom will find a lifetime too short to learn of all the interesting plants that may be raised in the hardy garden.

All the hardy, spring-blooming bulbs, Hyacinths, Tulips, Narcissus, Crocus, Snowdrops, &c., should be put in place this month, and be covered with a coating of litter or leaves.

A few of the hardy perennials that are desirable and very reliable for house and window culture, are *Dicentra spectabilis*, *Astilbe Japonica*, *Achillea ptarmica flore-pleno*, *Iberis gigantea alba*, and the double-flowered variety of *Iberis sempervirens*; these can be lifted and potted now. Keep them in a cool place until the soil is filled with roots, and at no time should they be allowed more than 60° or 65° of heat.

There is no more favorable time in the whole year to move the hardy flowering shrubs, as their roots have time to heal over after transplanting, and in spring they start early. A covering of leaves or litter will prevent the frost lifting them.

A valuable little shrub for the greenhouse and the window is *Deutzia gracilis*; bushy little clumps should be lifted and potted in good sized pots, and placed in a cool place. It will bloom for a long time toward the end of winter, and the graceful, little, pure white flowers can be used for cutting, and will go well with a great variety of other flowers. As an ornamental plant for the conservatory or the window there is nothing finer, and plant growers should always have a number of them on hand, growing them in the garden in summer and potting them up in October.

As to transplanting ornamental trees, not evergreens, if properly done, they will start quicker and stronger in growth than those moved in spring. Some particularly tender kinds, such as Magnolias, Double Flowering Peach, and the Laburnum should be left until spring. This statement is not expected to apply to particularly exposed and high localities, where winds and cold are extreme, but generally in the fairly well wooded regions of the north fall transplanting of trees can be successfully accomplished. After planting it is best to draw a mound of soil up about the stem, and to drive a stake by the side of the tree and tie it, so

there will be no chafing, and thus prevent its movement by the wind.

In the vegetable garden new plantations can be made of Asparagus and Rhubarb. It is far better to set these plants now than to do it in spring.

In storing away roots from the kitchen garden it is best to pack them in soil. It will be found in their use that Beets, Carrots, Turnips, Parsnips, Salsify and Winter Radishes are much better put away in boxes or barrels in layers of soil,

filling the soil in between them. The object is to prevent evaporation from them, and to retain in them their juices ; kept as here mentioned they will remain with all their original freshness all winter ; try it, and you will find it an improvement.

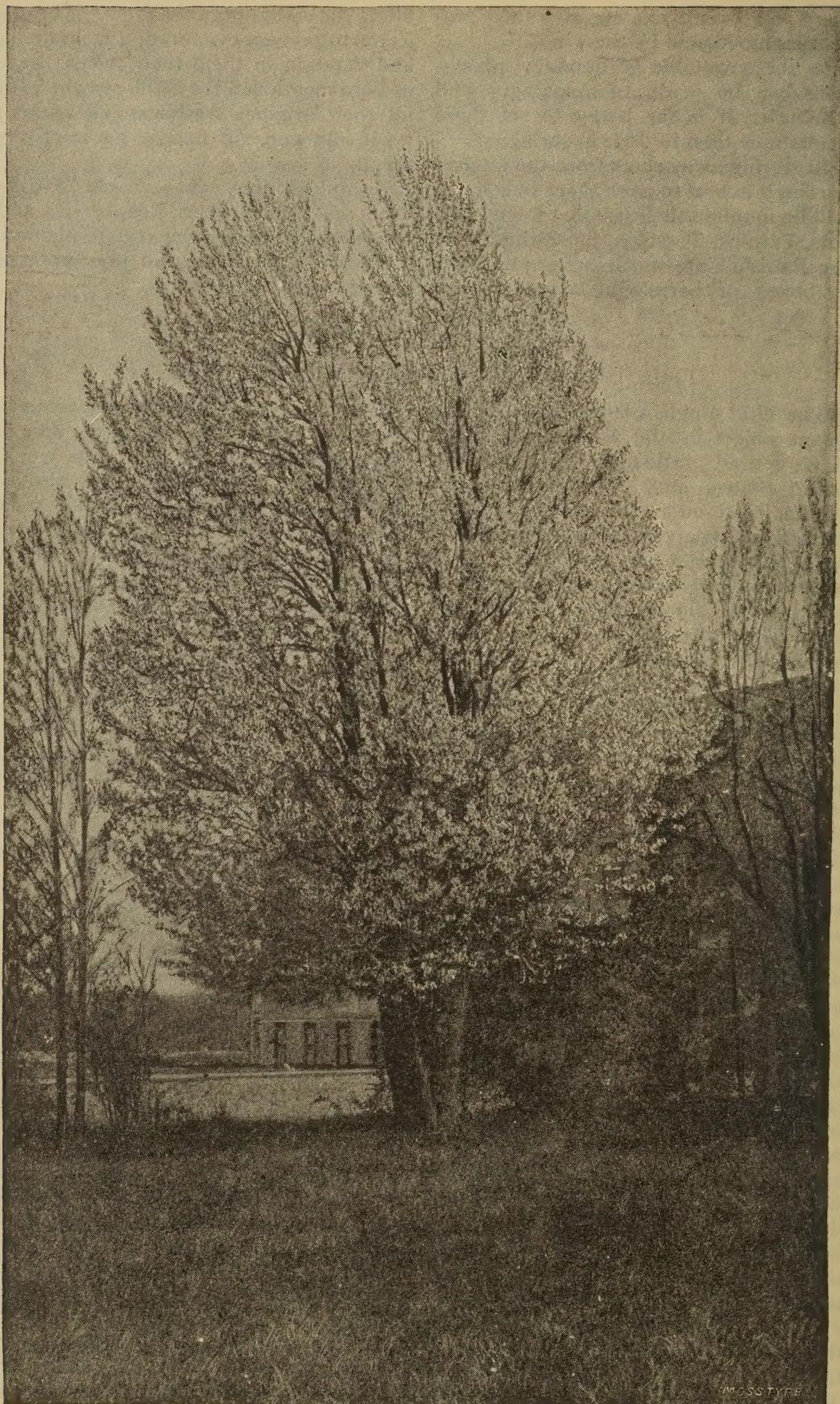
New plantations can be made of Currants and Gooseberries, Raspberries and Blackberries ; Grape vines can be planted. With all of them use the precaution of giving a mulch of litter.

THE BLACK MAZZARD CHERRY TREE.

The Wild English Cherry tree is a frequent object in the landscapes of the older settled portions of the Middle Atlantic States, and, especially when in bloom, it presents a most dignified and attractive appearance. An engraving of such a specimen is here given as it appeared when a photograph was taken of it, in full bloom, on the 7th of May last. This tree is about fifty feet in height, and of massive form. In bloom it is literally a sheet of white. Botanists call this species of Cherry *Cerasus Avium*, or, following LINNÆUS, *Prunus Avium*; horticulturally it is known as the Mazzard. There are two varieties of it, bearing respectively black and dark red fruit; the black variety is the one most disseminated. The fruit, which is bitter before maturity, retains but little of this taste when ripe, but becomes sweet and pleasant, and is eaten greedily by the birds. It has been extensively used in making bounce, or Cherry brandy, and the seeds are planted by nurserymen, as the young trees are the favorite stocks on which to bud and graft the choice, cultivated varieties of Cherries. This species of Cherries and its varieties are called *Merisier* by the French. LOUDON, in his *Encyclopædia of Gardening*, says : "The *Merisiers* are like the wild Cherries of the woods. The fruit is small, with little flesh, which contains, even in its fullest maturity, enough of bitterness to justify the name of *Merise* ; formed, as it is said to be, from the words *amère* and *cerise*. From this appellation has probably arisen that of *Merries*, which is given to wild Cherries in many parts of England." The word *mazzard* has undoubtedly the same origin. "Were Cherry trees scarce,

and with much difficulty propagated," remarks HANBURY, "every man, though possessed of a single one only, would look upon it as a treasure. For besides the charming appearance these trees have, when besnowed, as it were, all over with bloom in the spring, can any tree in the vegetable tribe be conceived more beautiful, striking and grand than a well grown and healthy Cherry tree, at that period when the fruit is ripe?" ALFRED SMEE, the author of *My Garden*, says, in that work, in mentioning fruit trees that are used as forest trees in England : "The Wild Cherry tree is extremely beautiful when covered with its white flowers, and in autumn its scarlet leaves render it again very attractive." The last named characteristic is also noticed by French writers, who put it forward as one of the attractions of the tree. Our own writers have not so particularly recognized this feature, though no doubt deserving, as our more highly colored Maples, and Liquidambers, and other trees are still brighter in their autumn tints.

WILSON, in his *Rural Cyclopedia*, says the fruit of this Cherry, is "at present one of the most popular in the London market." It used to be sent to market from this region, but for the last twenty years but little has been seen of it. The author last named says that three subvarieties of the species are cultivated in certain counties of England, under the names of the Bud, the Small Black, and the Honey ; and the fruit of the last of these is "very small, pale red, and remarkably sweet, and is largely used for making cherry wine." The black variety has always been the popular one in this country.



MOSS TYPE

THE BLACK MAZZARD CHERRY.

MEADOW SOD.

The great Grass family is closely related to the Lily tribe; we are even told that it may be considered as a class of degraded Lilies. Divide Lilies in halves, giving three stamens to each, set them closely in spikes, cut-side inward, and you have essentially the flower of the typical grasses, the inner half suppressed by crowding. Whether degraded or undeveloped is the better word we shall, perhaps, never know, their task of producing edible seeds in great multitudes preventing much of their substance being spent for ornament at present, and no one saw the genesis of either Lilies or Grasses.

To hazard another conjecture, though formed upon similar lines, Lilies may always have been Lilies, and Grasses Grasses; but nature, even when most prosaic, can hardly avoid grace and beauty; though destined to what we are pleased to call humble uses, the Grasses are potent to delight all our senses. And one of the world's great grass belts is ours, a better heritage than all the bloom of the tropics, as beautiful, too, if we can only think so. How it takes possession everywhere, running capes and promontories, into the forest, and forming islands in every opening. The meadow merely wears a mask of brown in the dead season, could fairy fingers clear it away it would be green at all times. But would this be an improvement? Are not the soft, neutral tints seen in late autumn, or winter, better colors? And how efficiently the close covering protects the soil. The storm water comes clear from such fields however steep, while in other lands the earth is torn by winter rains. The wet weather brook that will slide over turf without displacing a particle of earth, wears out a wide, stony channel when it enters the woods. The pioneer, clearing his ground from the forest, sowed grass seed amongst the stumps at once, and meadows of this sort, once common, are still to be seen, though growing rarer every year. The stumps disappeared in time, but the "cradle knolls," as the smooth mounds are called, which have been made by the earth falling from the roots of torn up trees, are permanent until smoothed away by cultivation. Such mead-

ows were much easier to mow with a scythe than the uniform surface of modern fields, because of the constant change of level and direction caused by the knolls. Though not according to the modern farmer's ideas, these fields were pleasant places, with their close, smooth turf and dimpled surface.

The wild flora, which retreats so promptly before the plow, was not afraid to linger here; red and white Trilliums, beds of Spring Beauties, Claytonia, tufts of Hepaticas, wild Leeks, Mandrakes, Solomon's Seal, and many others. It was easy to grow pensive over these almost vanished landscapes, remembering their soft sod and fine, fragrant grasses, with the cool shadow of the forest lengthening across them, the ripe Mandrakes, May Apples, to be gathered out of the fresh mown swath, and the number and vim of the bumble-bees' nests.

But the meadows of the present are pleasant, too; the Cone Flower, Rudbeckia, apparently an exotic from the west, the fragrant Alsike Clover, and others supply the wildwood flowers' place, and nature seems perfectly content with them. You need not be altogether forlorn in the pasture with its ferny woodsides and its patches of Eupatoriums, and some day you will find the sweetest of all flowers, the Sweet Briar Rose. But most plants are better grown in the meadow, secure from cattle, some claiming attention by their flowers, their evergreen foliage in winter, or by both.

Weeds, we say; but a Lily of the Valley may be one in certain places. What can be finer in its way than a good wild Carrot, with its bold outline, the pliant grace of its branches, and its broad umbels presented at so many angles to the view? As a farmer, I am sure to uproot it, as a lover of nature I can but admire it, and wonder again at the sterile black flower in the center of each umbel. What reason can be imagined why this flower should bear no seed, and be of this color? The seeds are all from white flowers, one would think the tendency would be bred out in time.

And what a splendid color is given, all the brighter because the herbage in general is somewhat faded at that time, by

the purple bloom of the New England Aster, *A. nova Anglæ*, along the fence. Its flowers an inch and a half in diameter have a fragrance similar to the Witch Hazel's flowers ; it is the finest Aster, at least the largest and showiest, that I know.

Buried under the snow, the meadow becomes a blank, though no accustomed eye is likely to mistake it even then for a pasture or stubble field, unless the snow is deep. Let the snow melt even in the mid-winter, and there is plenty to see ; one's eye becomes somewhat microscopic, a little greenery, hardly noticed at other seasons, now makes itself felt—the graceful rosettes of the Mouse Ear Life Everlasting, *Antennaria*, the pliant sprays of St. John'swort, or the dense mats of the *Veronica officinalis*, with its purple-tinted stems and rich evergreen foliage, to all of which zero or a summer temperature are the same. You would not imagine the *Veronica* to be an exotic so perfectly adapted to our climate and soil. Next June many spikes of pale lilac flowers will arise from the green mat of vines, then brown seed-stalks ; soon the evergreen sprays, again creeping around or across the cool gray stones.

The Dandelion, also exotic, is often deluded by warmth and moisture into flowering in December, not so the *Veronica*—its normal season done, it waits until another June. It seems to be greatly on the increase of late years, like another foreigner, the orange Hawkweed, *Hieracium auranticum*, from Scotland, called Grim-the-Collier by English cottage gardeners, from the smutty peduncles and flower buds covered with black hairs. It is really a neat and pretty flower, with large leaves close to the earth, and creeping, perennial roots ; con-

siderably inclined to become a weed in some localities. Its strong, green leaves are conspicuous in winter. One expects foreign plants to increase if they find the new habitat adapted to them, but the natives also extend their area in like manner, like the New England Aster, entirely unknown hereabout a few years ago, but now becoming common everywhere.

The haymow, in the dead season, has the best epitome of the summer ; Daisies, Cone Flowers, Buttercups, Yarrow, St. John'swort and others, almost as bright in color as ever. The fragrance of the leaves of Sweet Flag, as you dig up the hay, is a quick reminder of the damp swale where it grew, and here is a stout cane of the red Raspberry, covered with berries nicely dried. Then the red or purple plumes of the red-top, the perfect grace of the light and delicate *Trichodium* (no common name), heads of June Grass, Blue Grass, and others, as perfect as ever, with full leafed boughs of Maple, Basswood, etc., adding to the variety a fragrant chapter from the season of growth in strong contrast to the frozen, snowy landscape, where flowers and verdure seem henceforth impossible, almost. Now comes out a strong stalk of "Moonshine" or "Injun posy," *Antennaria margaritacea*, whose flowers are of the everlasting nature, round, white heads, closely imbricated. No one thinks of planting it here, but it is carefully cultivated in England under the name of Pearl Everlasting, the "flower heads white or colored, being extensively used for the decoration of rooms." Beauty, however common, should not be held in contempt ; this plant is really just as pretty as if it came from the antipodes.

E. S. GILBERT, *Canaseraga, N. Y.*

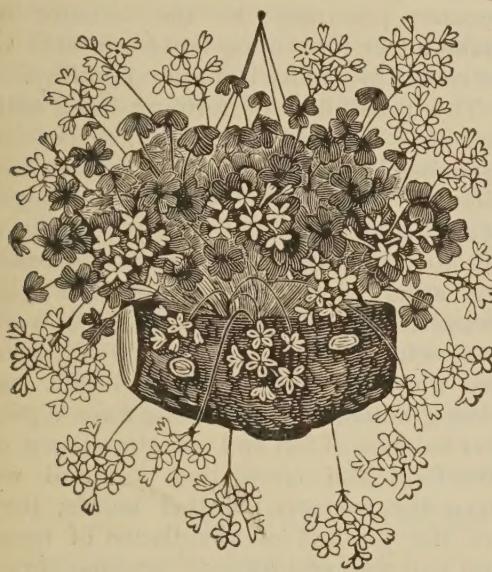
OXALIS AS A BASKET PLANT.

Its peculiar nature and graceful habit would render it especially adapted for this purpose. As no window should be without its pretty hanging basket, so no lover of the beautiful should be without this dainty plant, adapted so peculiarly to add just the grace needed to the most rustic or the more elegant of these hanging wonders. The brown, insignificant little bulbs tell no tale of the beauty hid-

den within, nor how, planted in small companies of four or five, they are ready, in August or September, to begin life over again, and from the slender, drooping stems, with their leaves of Clover shape, to the clusters of blossoms, dainty and sweet, to charm everybody the whole winter long and half the spring beside.

They vary a little in habit, the yellow and rose varieties drooping more in

flower and leaf than the white, which holds itself rather erect, yet is just as beautiful and as well adapted for hang-



OXALIS FLORIBUNDA.

ing purposes, while their habit of bloom, in all winter blooming varieties, is equally profuse.

Pot as early as possible in good sandy loam, and three, four or five in the same pot. If you start with but one bulb or two of a kind, they will soon be multiplied manifold, and a good time to reset is in August, or late in July. A little attention now as to water, air and light will soon start them into new growth, and they will be in fine condition for the window in the fall. When through flowering the foliage will turn yellow, and should be allowed to dry off gradually, when the bulbs can be knocked out and reset at the proper time.

While many plants in the window are often chary of bloom, to the great disappointment of their owners, the Oxalis has this merit, that it is never without flowers in season, and will reward, by its abundance of bloom, the attention bestowed upon it. It will entirely fill, especially if more than one bulb be planted, any basket, to the exclusion of all else, for it is a vigorous grower, and its leaf stems are equally profuse with its flowers.

H. K.

DOOR-YARD TREES.

All are familiar with the typical door-yard tree of the story books, with its low, spreading branches, so easy to climb upon, and so nicely furnished with comfortable seats for quiet reading, yet few are to be seen in actual life or in the modern door-yard. Indeed, it would be next to a miracle if one were found, there is such a wide difference between the typical tree of the modern nursery or tree dealer and the fabled one of the romance; and then the pruning and after treatment are all at variance with the ways that produce the latter.

When the nursery tree, a straight, slender whip, starts into leaf as a commencement to its second year's growth, it puts out little tufts of leaves all along its stem, from the axil of each leaf of last year's growth, and were these tufts left alone most of them would grow to be scraggy branches, the strongest of which would eventually develop into large boughs characteristic of the variety. The nurseryman well knows that such a branchy, bushy tree would not permit the cultivation necessary to its thrift, nor attract the eye of a critical purchaser who wants a

sleek-stemmed, civilized tree, and not a wildling, so he passes between the long rows, and with thumb and finger ruthlessly strips off the little tufts of budding leaves, and thenceforward the growth of that tree is constantly away from the romantic and irregular, and unless it meets with accident will never make the low-bodied, gnarled-limbed tree we read about, but seldom see. In his attempt to make a tidy, straight, symmetrical, saleable tree, the nurseryman has seriously interfered with nature's method of building a rugged, strong and picturesque stem.

If we wish to see the tree we read about, we must go to some long neglected fence row, on some back, country road, and there we will find it in all its rugged beauty and individuality. No gardener's thumb or pruning shears meddled with its infant growth, and so its branches start near the ground, and in their struggle for existence twist here and there, and grow in various twisted and uncouth forms.

The nurseryman plants each tree just so far from its neighbor, and allot to

each a certain portion of air and light, so each tree grows like the others; but the fence-corner tree struggles with weeds and brambles and other trees, and is only too happy to catch, here and there, a ray of light and a breath of air to guide its straggling branches in their race for life. One branch is pushed into a thicket of Green Briar, to be handicapped through the summer, and be weighted down with snow in winter. Another is poked through between two rails, and after reaching daylight on the other side, and commencing an upward growth, suddenly finds itself supporting one or two rails, knocked upon its prostrate form by some careless hunter or breachy bovine. In this way its trunk grows thick and short, and its branches assume the similitude of the horns of a Texas steer, and some romantic maiden sees it and wishes it grew in the door-yard, where its unique growth could minister to summer days of idleness.

The trouble with these wilding trees is that their eccentric growth does not strike the fancy or attract the eye until the age for transplanting is many years past, so one can admire and wish for them, yet seldom successfully remove them. I have witnessed many attempts to produce such trees, yet all were unsuccessful.

One man bought a Tetofsky Apple tree, with a single long, leading limb and a few small side branches, which he trimmed away, and then bent the single limb, which was some eight feet long, into a complete circle about eighteen inches in diameter, leaving the end in an upright position, and confining it with strings and stakes. The tree maintained a sickly existence one season, and then died.

Another man cut off all the branches of a Maple tree but two opposite ones, and endeavored to confine them to a wagon tire, so as to form the letter O, intending to tie them together above, to form a single trunk again, but this scheme failed through the chafing of one branch.

In my boyhood days I trained a bushy seedling Apple tree to one projecting branch, about two feet from the ground, intending to form a head five or six feet outside of the main stem; but sun scald killed the tree in two or three years. Since then I have observed that trees

which get accidentally leaned or bent to an angle of forty-five degrees, or more, gradually lean more and more until they become prostrate; so the attempt to make a tree form a top far to one side of its center of gravity is an impossibility.

The possibility of forming trees with eccentric arrangement and curves of branches is, however, neither remote nor difficult, provided one is willing to begin at the beginning and go slowly. We have but to remember that the wide spreading arms of the Beech or Elm that stretches across a sixty-foot street were once a tuft of leaves at the side of a slender whip, and that their evolution has been gradual, and depending upon a perfect balance of top and an abundance of root-food and circulating air, and we have the secret. In other words, they are the product of abundance of room and rich soil, getting their peculiar forms from the habits of their species modified by the laws of gravity, as the branches get heavier and longer. We must also bear in mind the natural and unchangeable laws of plant growth, and attempt no sudden and abrupt bending of matured wood. If we wish a tree with a large letter O in its trunk, grow a tree with two diverging branches, and when these throw out branchlets on their sides select two on the inside that will, when growing, form a diamond with the main branches below them; these can be twisted together slightly and will eventually, if not injured, make a single trunk above. The outer ends of the first branches can be cut off at the junction of the second pair, and the natural growth of the tree will deposit cambium faster on the inner angles of the sides of the diamond, than on the outer, and the contour of the opening will in time become an oval. Of course, this work must be done early in the life of the tree, and the second pair of limbs, which are to complete the circle, should be selected while such limbs or shoots are to be had.

In the case of an Apple tree, a vigorous one year tree should be cut back to the desired height, and two shoots more allowed to grow as long as they will. The next season there will be an abundance of shoots wherfrom to select the second pair, and after that it is plain sailing. That a tree is desirable with a trunk with a hole in it is a debatable question, es-

pecially as the increase of years will surely close it, but it furnishes a good example of how natural growth may contribute to artificial forms.

Trees with stout stems and low, spreading, sturdy branches, that children can easily climb upon, are desirable however, one at least in every door-yard, and are not difficult to form if we go about it in season. Many are deterred from planting low-branched trees because they think they will be in the way; but the heads of such trees need not be lower than those of trees with a trimmed-up stem. As the tree grows the low-starting boughs are treated as stems and trimmed of side shoots, and a tree with

six branches starting within two feet of the ground will only take up the room which those branches spread at the height beneath which passage is desired. If the stem is a single one, like a letter I, then a foot-path can pass close to it; but a low, double or triple-stemmed one, like the letter Y, will crowd the path away to the distance which the branches spread at a height of six or seven feet from the ground.

The beauty of low-branched trees can be observed in some of our leading cemeteries (Spring Grove, near Cincinnati, has some fine examples), and in neglected fields where they have been accidentally kept from browsing cattle. L. B. PIERCE.

NATIVE SHRUBS OF NEW ENGLAND.

The first warm days of April invite us to the woods in search of the Arbutus; a glimpse of green rewards our expectant eyes, and we move the leaves carefully from the gnarled and twisted Oak roots, only to find tiny clusters of buds with no gleam of pearly white or rosy pink among the glossy leaves; we turn away disappointed and look down the hillside toward the meadow, and lo, a bush all covered in creamy, dainty blossoms greets us. We step carefully over the patches of Hepatica and Erythronium, just peeping out of the moist, clayey soil, and try to break off the slender, gray, smooth twigs, and we twist and pull and bend in vain, truly it might be called rubber instead of Leather Wood, this fairy blossomed Dirca, the earliest flower of our New England woods. The Houstonia only is brave enough to lift her pale blue face in the warmest and sunniest meadows, and the Saxifrage is trying to bloom in the sunny crevices of the rocks. But the sun mounts higher, day by day, and the Andromeda, in the swamps, hangs out her thousands of pearly bells to lure the bees, and the Alder tags shake their golden pollen on the pale green sphagnum at their roots.

Here and there, in the woods and in the thickets along the river banks, the snowy flowers of the Amelanchier, or Shadblow, unfold in a night, the petals of one species faintly tinted with pink. Hardly a leaf has yet unfolded, but one by one the delicate,

translucent petals float off seemingly like snow-flakes through the air, and the bush stands forth clad in emerald green, many a leaf with crimson veins and margins which disappear as it attains its full size.

The warm days of May come swiftly, and the beautiful flowering Dogwood, *Cornus florida*, flings forth its banners to the sunshine, every great, white, four-petaled involucrum looking straight upward as if proud of its clusters of greenish yellow flowers, which no one notices; irregular, of course, it is, whoever saw one that did not have two large and two smaller petals, making the blossom oval instead of round? Then that brown, shrivelled spot, with a dash of crimson in it that is always on the margin of each petal, and is not an imperfection, as it seems, but an individuality.

Here, in New England, we have *Cornus alternifolia*, with its loose cymes of pale buff flowers; *Cornus sericea*, with dull purplish branches, and young shoots of dark red; *Cornus paniculata*, with gray bark and flowers in cone-like cymes and nearly white; *Cornus stolonifera*, which sends out horizontal branches, and whose flat cymes of yellowish flowers are in pleasing contrast to the velvety green, full grown leaves. These species of *Cornus* are all hardy, bear transplanting well, and without exception very ornamental.

Scattered about on the hillsides, and more especially towards the coast, throughout New England, are the Barberry bushes, every leaf bristling with

sharp points, but fragrant, drooping clusters of yellow flowers in June, succeeded by oblong berries in September, which good housekeepers make into jelly.

Another shrub, which is known by its glossy, very dark green leaves, is the Prickly Ash. Its inconspicuous greenish flowers appear about the first of May, before the leaves. Its numerous brown prickles make it well adapted for hedges. It grows rapidly and its roots penetrate the ground for a long distance.

Every one knows the common Sumac, with its yellowish-green panicles of flowers in June, and its cone-like heads of scarlet berries in early autumn. One of our largest shrubs, growing when standing alone to a height of twenty or more feet, its grayish, woolly-looking branches crowned with its spreading, palm-like mass of foliage, bright light green in summer, and blazing scarlet in autumn, making it always conspicuous, especially when growing in masses, as it generally does.

Here and there, in patches in the swamps, grows the shrub called Poison Sumac, with its disagreeable odor, and easily distinguished by its red, wingless petioles, and its smooth, greenish-yellow berries.

Rhus Toxicodendron, or Poison Oak, is a weak shrub with brownish gray berries, and is not noticed as often as *Rhus radicans*, or the climbing species, which is usually called Poison Ivy, and is very often taken for Virginia Creeper, but from which it may be distinguished by its three leaflets, the lower one nearly always differing from the other two; its leaves are dark and shining, frequently tinged with red, and in early autumn it takes on very brilliant hues of gold and flame; its berries are white; its small, greenish flowers appear in May.

In hilly woods we sometimes find the Maple Bush, *Acer spicatum*, with its pretty clusters of greenish flowers, light gray bark and coarse, sharply-pointed leaves, which are both three and five lobed in the same bush.

We seldom notice the twining shrub or climber called Climbing Bittersweet, *Celastrus scandens*, during the summer, as it is generally hidden amongst the foliage of the trees in the edges of the woods, but after frost its clusters of scarlet seed-vessels, nestled in the three-sepaled, orange calyx, are quickly seen and

gathered to brighten the Christmas evergreens; they retain their color, grow hard and firm, and, if kept from insects, will keep for a long time.

One of our smallest shrubs is the pretty little Ceanothus, or Jersey Tea, it is found almost everywhere in New England, and in the West. In June every little branch is terminated with a dense panicle of minute white flowers, the branches growing from the axils of the leaves, which are soft and downy on the under side, and are said to have been used for tea during the Revolution; its large, red root is used for coloring.

The far-famed English Ivy is not hardy in New England, except, perhaps, in sheltered situations near the coast, but wherever it can gain a foothold grows rapidly. The American Ivy, or Virginia Creeper, *Ampelopsis quinquefolia*, flaunts its rank growth from cathedral walls and stately churches, making them veritable poems in stone, clings lovingly to the dear old homesteads, fringes the small windows of the cottage in the outskirts, drapes the mossy rails of the old farm fences, catches the sunshine through the golden days of summer to throw it forth from its leaves in autumn in great splashes of color, rivaling the most brilliant sunset. The dusky, purple berries hang in clusters to tempt the birds who pick them, one by one, till only the rosy pink pedicels are left to drop off after the leaves.

The Choke Cherry, *Cerasus Virginica*, with its panicles of white flowers, is one of the prettiest of our May flowering shrubs; its odor is rather agreeable, and its sour, red berries are eagerly eaten by the birds, and a single bush by a quiet roadside will frequently contain a dozen species of birds in a late August afternoon. A smaller shrub, called Choke Berry, *Pyrus arbutifolia*, has remarkably pretty clusters of white flowers with dark red anthers, and very glossy leaves, and is usually found growing on the borders of open woods or moist roadsides.

Not a hedge, or sloping, rocky hillside, or neglected field in all New England, but one can find, in June or July, the rosy pink buds and blossoms of one or more species of the single wild Rose. *Rosa lucida*, with few scattered prickles, *Rosa nitida*, with dense red ones, *Rosa blanda*, with few prickles but no shine in the

leaves, *Rosa Carolina*, with recurved prickles, and the Sweet Briar, with its smaller and fragrant leaves, and its great, stout, thorny branches.

Blackberry vines are not generally looked upon as ornamental, but they are a pretty sight when growing by the roadside, overtopping all other shrubby growths with their masses of bee-haunted, snowy flowers, with occasionally the golden-yellow, black-spotted Turner's butterfly hovering above them.

The *Crataegus*, or Hawthorn family, blooms the latter part of May in New England. The flowers of all species are very fragrant, and the shrubs, which are almost trees, are all armed with sharp thorns, and the leaves are lobed and crenate. The calyx remains on the scarlet fruit which turns brown after frost, but hangs on until eaten off by birds in the late winter. The flowers of *C. Crusgalli* are larger than *C. punctata* or *C. coccinea*, and none of these are as pleasantly fragrant as *C. oxyacantha*, or the English Hawthorn, which is already naturalized in many parts of New England, and whose clusters of flowers wreath the thorny branches so densely as to hide the small, shining leaves which are about half grown at the time of flowering. The petals of all these take a pinkish tint before they turn an ochreous brown and fall off.

The climbing shrubs that are called Honeysuckles are somewhat rare in New England, with the exception of *Lonicera parviflora*, which is commonly known as Woodbine; its whorls of yellow, red tinged, tube-like flowers are succeeded by orange-scarlet, soft, pulpy berries. It is a slow grower, but is hardy, never troubled with insects, and blossoms profusely in May and June.

One of our few yellow flowering shrubs is the *Diervilla*, or Yellow Honeysuckle. It is common in thickets and bush lands, and is well known by its opposite, deeply notched leaves and its clusters of faint scented yellow flowers, which appear in June.

One of the handsomest of all our native shrubs is the Elder, *Sambucus Canadensis*; its glossy, pinnate leaves, and great, flat cymes of creamy white, fragrant flowers, make it a very desirable addition to our list of shrubs that should be cultivated. A basket of Elder flowers and

Roses is a "thing of beauty" that will be "a joy forever" in the memory.

The Viburnum family supplies us with many flowering shrubs, of which the best known is the Cranberry Tree, *V. opulus*, whose white, radiate cymes are succeeded by large scarlet berries, which resemble the Cranberry in appearance and taste, and are used as a substitute for it in many places. *V. Lentago*, or Sweet Viburnum has spreading cymes of white flowers, in June, and black, sweet berries in late autumn. The berries of *V. nudum* are bright blue covered with a bloom, and are dainty bites for the birds preparing to migrate.

A shrub that always attracts attention in the swamps is the *Cephalanthus occidentalis*, or Button Bush. It is easily found by its round, ball-like heads of white flowers, which remind one of the seed-balls of the Buttonwood, or Sycamore. It is in bloom in August.

The greater number of our shrubs flower in May and June, and this is particularly true of the Heath family, the colors of whose flowers are in tones of white or red, no yellow or any suggestion of blue. The Huckleberries and Blueberries are so pretty, with their clusters of pearly white or pink bells in the open woods or the rocky pastures, but they will not bear transplanting.

The beautiful Laurel, *Kalmia latifolia*, is the queen of New England shrubs, with its magnificent cymes of flowers in all shades from white to deep rose. Its glossy, evergreen leaves are said to be poisonous to cattle. Here and there, in low woods, and especially in burnt-over lands, we step over the little bush called Sheep Laurel, *Kalmia angustifolia*; its small clusters of purplish-pink flowers would be thought pretty if it did not suffer by comparison with its lovely relative.

The trailing shrub which grows dearer each Christmas-tide is the *Arctostaphylos Uva-ursi*, or Bear Berry; its long branches so thickly set with the small, ovate, glossy evergreen leaves, varying in color from the dark green nearest the roots to the shining red ones on the tips of the youngest branches, make it our favorite evergreen. It retains its color and beauty through the winter in the house, but its few scarlet, tasteless berries drop off almost as soon as it is gathered. Its

dainty, pinkish bells hang from the under side of the branches in May and June. HELEN HUNT JACKSON's description of the Kinnikinnick Vine, of Colorado, applies equally well to its near relative, the Bear Berry.

Look through the trees and catch a glimpse of that great rosy cloud, draw nearer and the dearest flower to New England is before you, Azalea nudiflora, or Swamp Apple, or Honeysuckle, as it is variously called. Break off the great pink balls of fragrance and loveliness, and put with them the feathery young green shoots of the Hemlock, and as you look at them lovingly, thank God for the beauty of bleak New England.

Rhodora Canadensis, with its naked, smooth, brown twigs and the purplish-pink flowers clustered on their extremities, is met with by the roadsides the last of May. It is always noticed by the entire absence of leaves, although a late season sometimes shows a tip of pale green among the flowers.

Seldom found in the interior, but abundant on the sea coast, filling the air with its spicy fragrance, grows the Clethra alnifolia, or Sweet Pepper Bush. Its long, white, waxy spikes stand upright; in some localities it is found growing ten feet high, its usual height is three to five feet. It grows abundantly about some inland ponds, as well as on the edges of salt marshes, and in both places seemingly disputing the right of way with the graceful, climbing Clematis, or Virgin's Bower, which last appears to conquer, as it waves triumphantly in the autumn sunshine, its feathery, plume-like, seed vessels for banners of victory, mingled with the blood-red leaves of the tall Blackberry.

No one notices the Black Alder, *Prinos verticillatus* in summer, but when the leaves have all fallen from the dense bush-growth in the moist low lands, then the eye is drawn thither as if by magic. A northwest wind, a whirl of the leaves, and, lo, the swamp is aflame; the scarlet berries gleam in the sunshine like globes of fire.

Sassafras is well known by its aromatic fragrance, which is in root and bark as well as in its curiously lobed leaves. Benzoin odoriferum, or Spice Bush, is known by its golden-yellow flowers, which appear before the leaves in May, and are fol-

lowed by ovoid, scarlet berries in autumn. Frost comes, and along the roadsides the fuzzy involucrum of the Hazelnut expands, disclosing the sweet, well flavored nut that the farmer's boy, driving the cows at sunrise to the meadow pasture, where the grass is still green, stops and fills his jacket pockets with, as he whistles merrily, as only a farmer boy can. The *Corylus Americana* is our only nut-bearing shrub.

Along the banks of streams in most parts of New England grows the *Alnus serrulata*, or Smooth Alder, its clusters of dark brown, fertile aments hang on all winter, and the yellow pollen of the sterile ones in early spring turns them with its Midas touch to gold, when the air is still.

Many of us who, in childhood, have had our burns and bruises rubbed over with grandmother's Bayberry salve, have an affection for the low-branching shrub, *Myrica cerifera*, with its pungent, spicy odor and its green, ovoid berries covered in a waxy tallow, which we have gathered so many times in a sloping pasture lot on an old farm in Connecticut.

We always find the dear old Sweet Fern, *Comptonia asplenifolia*, in the same locality, not half as readily noticed in the summer when its low growth is hidden by taller shrubs, but when the leaves have dropped, in autumn, then the Sweet Fern dots the pastures with its long, burnt Sienna colored patches, making a vivid contrast to the red-capped Lichen at its roots, which is called by the little ones, "Robin Hood's merry men in green."

Indian summer comes, and the pale, purple haze hangs between us and the hills; the leaves, with no vestige of their gorgeous autumn tints remaining, lie in scattered heaps upon the ground; only the Oak rattles his brown foliage in defiance, when the Witch Hazel, *Hamamelis*, sends out its pale blossoms, its long, narrow, twisted petals having an uncanny look against the background of the Hemlock. The woody capsules, with their two white seeds, seem like elfish grinning brownies daring you to pluck these last blossoms of the year. The yellowish, sessile flowers remain on the grayish-brown branches all winter, and it is not so rare a thing to find the long petals twisted about each other, still retaining

their color, but dry and papery, when in your woodland walk, on some May day that has walked backward into April,

you gather the first unfolding blossom of the Dirca.

FLORENCE I. W. BURNHAM.

IN HOPE OF SPRING.

IN MEMORY OF A FRIEND.

Above his rest deft Autumn softly weaves
A coverlet to wrap the new grave in,
And broiders it with gold and scarlet leaves,
While spring's sweet mysteries of bloom begin
Beneath the mold o'er which the sore heart grieves
For hopes that perished, like a flower in frost—
A symbol that each passing season leaves,
To say, That is not dead which seemeth lost.

Cold, silent lips, which our warm lips have kissed,
Dear hands, whose touch can never be forgot,
Friendships that vanish like a summer mist,
We have you, and, behold, we have you not.
A lonesome shadow falls across the floor
From each low grave they heap beneath the sod
Where sleep the ones we miss ; but evermore
We have them safe in Paradise, with God.

To me, it often seems that death must be
Like going on a journey, very far,
Across the mountain and the solemn sea,
To dwell in a new land where strangers are.

But if a friend is there we loved of old,
Our eager thoughts fly faster than our feet,
And when in ours their loving hands we hold,
The stranger-land seems full of welcome sweet.

How fair his grave will be when spring comes back,
And from the mold, that hides his face away,
The Violets grow, and every robin's track
Is covered by the creeping things of May.

How fair his face will be when dreams come true,
And we stand face to face with him, and see
The rapture of a joy we never knew
Break in the eyes we miss so constantly.

Sleep well, warm heart, so brief a time on earth,
Beneath the dead leaves and the autumn rain ;
That which men count as death, in heaven is birth ;
Flowers die, we say, but bloom in spring again.
The Violet, above you, in the mold,
Awaits the resurrection of the year,
And when its leaves, in April days, unfold,
We'll say, "He lives with God, who once was
with us here."

EBEN E. REXFORD.

THE OWNER.

Who owns yon fields, so fair and wide?
Does he who gave his gold to win them,
Yet ne'er, with vision rapt, hath spied
The stretch of lovely landscape in them ?

Nay, nay ! his are by law, indeed,
The green expanse, the reach of river ;
But He who Nature's forms can read
Doth truly have and hold forever.

The priceless work of art divine,
The painter's or the sculptor's doing,

Which thou dost gaze upon, is thine
If thou canst feel its charms while viewing.

The senseless soul a world might claim
Without one radiant Rose possessing ;
Its own the universe might name,
Yet lose each sunset's silent blessing.

Ah, there are rich that are most poor,
And poor there are worth countless treasure ;
What wealth alone can ne'er secure
Is his whom beauty thrills with pleasure.

PHILIP BURROUGHS STRONG, Malone, N. Y.



FOREIGN NOTES.

CHRYSANTHEMUM CULTURE.

The following is a portion of a paper read by Mr. TUNNINGTON, of Liverpool, before a Chrysanthemum Society in England :

The May Bud.—This bud, which all cultivators ought if possible to avoid, is due in most instances to not looking after the plants well between the time of flowering and the time the cuttings are ready for insertion. The stools should be carefully watered and kept near the glass in a cool structure where frost cannot reach them. This will induce the formation of strong cuttings. If striking is delayed until November or December for Japanese and a few late flowering incurred (the principal batch of incurred to be inserted during January and February), I maintain that cuttings derive more benefit by being left on the old plant during the dark days of December and the early part of January than they do when inserted in pots stood in cold-frames. If the cuttings are placed in a gentle bottom heat and never allowed to flag, they will root quickly and grow away freely. "Why avoid the May bud?" If stopping is recommended, that is a natural question. The reason is simply this: It is not merely wasting time, but the formation of the bud practically paralyzes the plant for a time. This bud forces the laterals from every leaf down the stem of the plants, and checks the plant more than the removal of a small portion of the top. The formation of the bud causes the stems to harden more than I consider good for the well-being of the plants in this early stage of their growth.

Change of Cuttings.—There is another point of importance which influences this, matter and one that should not be lost sight of—viz., a change of cuttings. When plants are grown on what I call the high pressure system, for such it is, and blooms of exhibition quality are produced, the constitution of the plant is enfeebled, its whole energy being concentrated into the building up of wood and the development of a fine bloom. The result is that cuttings are in many cases very sparingly produced, and often then they are only of the weakest description. A change of cuttings is a decided advantage, and the cuttings obtained should be from plants that are grown for ordinary decoration, grown well, but not on the exhibition principle. Plants grown for decoration generally yield plenty of cuttings, and those if well looked after, usually grow more strongly and make better plants during the season than the weak cuttings that have often to be depended upon from plants that have been grown strongly for some years.

Early Striking.—What advantage is gained by early striking? is a question well worth the consideration of every grower, and one that must be duly considered if we are to get the right sort of bud at the proper time. If early striking possesses advantages of such importance as some growers maintain, I have failed to perceive them; but on the other hand I have been able to note the disadvantages that attend such a course of treatment. By early striking the cuttings are "hanging about,"

and their small stems gradually become hard, the result of this treatment being only too visible in May by the production of a flower bud. If the cutting is a good one to commence with, and the plants produce a bud in May, it is due to a check in some stage of growth. Cuttings propagated from plants that have been too long under what I have termed the "high pressure system of cultivation," show this bud generally toward the middle of May. I may say in passing that my plants, or at any rate a portion of them, are showing this year earlier than they usually do—namely, the first week in June, and from what I have seen with other cultivators the same sort of early bud formation is common with all. We do not apprehend much difficulty from this, as our plants are in good condition at the roots. Although it checks the plants for a time, most probably these plants will not show another bud until August, or what I may term the proper time for securing the buds.

Taking the Buds.—I do not care to take any before August 28th, except a few that are known to be late varieties. The plan I adopt is to take the points out of the plants when I observe too early bud formation taking place. In some cases three or four good breaks will be observed a few inches down the stem of the plants, and when this occurs I remove the top of the plants down to those breaks, which somewhat reduces the height of the plants. I have always topped some of the plants of the same family in May, and allowed others to grow in a natural way. This results in the buds being produced at different times. If cuttings have been rooted at the time advised, and grown on without a check, those not stopped will usually grow on one stem till the middle of July. This is what I term the July bud. This bud is of no use for producing flowers for exhibition. It is the growths that spring from the base of this bud that produce the best flowers. By topping some plants in May and allowing others to grow on in a natural way, a better chance of getting the right-timed bud may be had. It is not unusual to see blooms produced by this topping process of quite a different character on the same plant. The cultivator is sure to hit the mark with some of them. Some will show a bud early in July. Those should have their shoots removed by degrees. About the middle of the month the whole of these plants will require attention, as I have found this the best time to put them in what I call their second journey. This is done by removing all the shoots that are not required to carry a flower; at the same time examine those that have not actually shown their buds. In some cases small growths will be showing from the axils of the leaves. The points of these laterals should be removed at once, as by so doing quite a fortnight will be saved. This is the time to throw all the vigor possible into the plant. If left to take its own course it would come too early on the one hand, or too late to run on to get a bud other than a terminal, which is useless in the north for exhibition purposes unless the season proved an exceptionally fine one, whilst in the sunny south it would make a good bloom. If the plant is in good condition at the roots, and is well furnished with foliage, it will produce another crown bud, intermediate between the

crown and the lateral. The leaves on the stem of this bud follow up so close to the flower that when expanded the guard petals rest upon the foliage. This is the bud I always find produces the bloom possessing all the qualities a first-class flower should have, and such as will make the cultivator's heart rejoice when he comes to cut the flower. I have adopted this plan for years, and have always found it a good one. This especially applies to the incurved section; at the same time I may name some of the Japanese that can be got in at the proper time better by this stopping process—viz., R. Brocklebank, Meg Merialies, Boule d' Or, Yellow Dragon, Val d' Andorre, Gloriosum, Belle Paule, Grandiflorum, Fair Maid of Guernsey, Baronne de Prailly, Triomphe de la Rue Châlets, and many others. If those plants are pinched at intervals from the middle of May until the middle of June there will be less difficulty in securing a bud that will expand with freedom; if not topped they are liable to show too early, and only produce coarse hard-centered buds. If this bud should prove worthless the shoot on which it was produced is lost, as the next bud will be too late to be of any service. It has long been understood that Eve and Mabel Ward require topping to get them to produce a bud at the proper time, which is quite true, but I go further than this, and top some of each variety that we grow.

August Buds.—Some plants will show buds too early in August. In this case a little judgment must be used. I allow the small growths that spring from the base of the bud to expand for a time. They must not, however, be allowed to grow to the extent of robbing the bud too much, or it will be lost, but pinch one part of a shoot one day and so on, just sufficient to ease the bud. I am now speaking of the top shoots. Those lower down the stem can be left to take care of themselves until you can perceive the bud swelling has attained the size of a large Pea; even then do not remove all the shoots at once, but by degrees.

There is another matter worth noticing in some of the strong growing Japanese varieties, especially when they show rather early. A strap leaf will appear on the stem of the bud; this leaf will sometimes grow to the extent of robbing the bud so much as to spoil it, therefore it should be gradually removed. As soon as I have secured the bud I apply to the points and buds of the plant (once or twice a week if the weather is hot) some tobacco powder which I think is a great preventive against the attack of yellow thrips, which are always lurking about at this time and often destroy the bud whilst in an embryo state. This cannot readily be perceived at the time, but it is too often the cause of deformed flowers when the bloom expands.

Feeding the Plants.—When last with you I omitted one important ingredient from the compost I advised you to use—viz., charcoal. That sold by nurserymen is excellent, but for years I have been in the habit of preparing my own from the refuse that remains after the pea stakes are dressed, the branches that blow from trees and any prunings that I am able to collect; a ten-inch potful of this is used to each barrowful of soil. This keeps the soil open and in a healthy condition, an important matter if the plants are to root with freedom. If a sound compost is used very little feeding will be needed before the close of June; in fact, up to the 20th no feeding has been done. I then commence giving the plants weak liquid manure once a week from the farmyard.

[To be Continued.]

NEW VARIETY OF AQUILEGIA.

Among the hardy perennial plants there is none more interesting or attractive in bloom than the Aquilegias, and one of the most pleasing and striking species is *A. chrysanthia*, found some twenty years since in the mountains of New Mexico and Arizona, and now more or less common in collections of hardy plants. Its canary-yellow flowers are unlike those of any other species, and are particularly graceful and beautiful.

A new variety, produced from seed of *A. chrysanthia*, in the establishment of



AQUILEGIA CHRYSANTHA GRANDIFLORA ALBA.

CARL KAISER, Nordhausen, Germany, is figured and described in a late number of Müller's *Deutsche Gärtner Zeitung*. This variety grows somewhat more bushy and not quite so tall as the species it is derived from, and produces its flowers in great abundance, and is quite hardy. The flowers are larger than those of the species, and of a pure white, and is to be known as *Aquilegia chrysanthia grandiflora alba*. The strain is now so well fixed that from a thousand seeds there will not be twenty plants that revert to the original yellow color. The plant is considered desirable for pot culture, as shown in the illustration, or for the

open border. The seeds have not yet been put into the general trade, but are being sent out by the originator.

PARIS EXPOSITION.

The attempt to grow the Victoria Regia in the open air in artificially heated water in a pond, in the grounds near the Brazilian Pavilion, at the Paris Exposition, has been so far successful. Three plants are pushing their leaves vigorously, and have at present a diameter of about two feet.

A product shown, which seems peculiar to Bolivia, is dried frozen small Potatoes, white and black, under the name of Chunos; they are said to keep long, and are very useful as a food product. Being gradually frozen they lose their moisture, vegetation is arrested, and no subsequent fermentation takes place. Before they are used, they are soaked for twenty-four hours in water, when they swell, and are roasted between two layers of straw.

Dried slices of Bananas and Plantains are shown in the Chili section. Another product of local importance is the leaves of Erythroxylon Coca, of which numerous samples are exhibited, as well as Elixir of Coca, and other preparations of the kind which have obtained some repute in Europe. Peru also shows the leaves, and sends legumes, &c., in bottles.

In the United States Agricultural Section there are sixty-four framed specimens of foliage and seeds of trees, and one hundred and two specimens of seeds of forest trees in bottles, and small maps framed, showing the locality and diffusion of each kind.

In the grounds of the Trocadero are two magnificent beds of Cockscombs, which, from a bedding-out point of view, are extremely novel and effective. One plant which we were allowed to measure was two feet four inches across the crown, and ten inches over the top, the height of the plant being eighteen inches. All are not so large, but a great number seemed almost of equal size. They form an exhibit by Mons. LECARON (late PAUL ZOLLARD), 20 Quai de la Mégisserie, Paris, whose representative gives the following points of culture: The seeds are sown in March on a warm bed, and the seedlings are pricked out also on a similar bed. Pot culture is avoided. When frost is no

longer to be feared, the plants are planted out in well manured soil, and in a warm position, and are freely watered during hot weather. They last in good condition about four months. The plants here referred to are in baskets, which probably amounts to planting out as the roots would, no doubt, go through. Thirteen colors are offered, though all, judging from those we saw, are variations of red and yellow, approaching to white from both. Such beds as these would be very striking about London, but whether the climate is good enough for them is another matter. It might be, because it is evident that in Paris the fine development is due chiefly to their early culture.

Gardeners' Chronicle.

THE WATER FAIRY LILY.

The following letter from Hong Kong to a correspondent of *The Garden*, will be found interesting, and especially in connection with what appeared in this MAGAZINE, page 182 of this volume, under the head of "The Chinese Sacred Lily":

As a lover of Daffodils I have read with much interest in *The Garden* of March 2d, your notes on the only form cultivated in China, the Water Fairy Flower, and as you express a wish for some further information as to these, I take the liberty of addressing you on the subject, more especially as I think I can meet your desire for a larger importation of the Chinese Narcissus.

Before leaving England, three years ago, I grew a small collection, and was therefore much interested to find on coming out here that it was still possible to grow Daffodils, though on a limited scale and under different conditions.

All that you write as to the Chinese history and culture of the plant is correct (including the story of the brothers), as far as I have been able to ascertain. Chinese inform me here, however, that they do not as a rule, call the whole species "Grand Emperor," but they would refer to one particular spike or bloom in these terms, just as we should say, "that is a champion Strawberry," indicating one of special goodness.

In addition to the fact that the Chinese for the most part grow the bulbs in water, the leading distinction between their culture and ours appears to be that in China they are universally grown as annuals,

the bulbs always being thrown away after blooming, and new ones bought for the next year. Various attempts have been made at different times to grow them a second year, but always, as far as I know, without success. In south China the chief and I think only farm is in the interior, not many miles from Foochow, at a place called Po Tin, and this, I believe, is the scene of the legend to which you refer. The property is still in the hands of the family mentioned in the legend, and the Chinese declare that the bulbs will not grow anywhere else, but this is probably a fiction, and one of a thoroughly Chinese kind.

As to the culture on the farm, I have been able to obtain no information, but considering the enormous quantity grown in China and around, there must be some rapid mode of propagation, remembering that no bulb is grown a second year after being sent out.

From the freedom with which the best bulbs bloom, and the number of flowering centers on each bulb, I am inclined to think that the blooming must be retarded for two or three years, so as to throw the whole strength of the bulb into the flower the year it is sent out.

The most curious feature of the Chinese culture, however, is one to which you do not refer, and of which you may possibly not be aware. Their plan is as follows: they select the strongest bulbs having three or four flowering "breaks," and cut away the whole of the outer coatings of the bulb right down to the base, leaving the centers containing the embryo flower stalks surrounded only by a thin coating. If large specimens are required, two or three bulbs, after being so treated, are fitted together with cotton wool wrapped round the upper side of the base, and worked together in a circular form; the points of the incipient flower-stalks now curl inwards, rather like the claws of a crab, and the plants are placed in shallow wooden trays in about an inch of water.

The effect of cutting away the outer coatings of the bulbs is to stimulate rapid growth of the flower-stalks or rather very rapid development of the flowers, which are borne on stalks varying from two inches to six inches, and as the growth is rapid, all the flowers come out at once. Just before this time the plants can be re-

moved into any suitable bowl or china ornament, and a pretty and attractive room decoration is obtained. I do not think such a frequent change of water as you mention is necessary; the bulbs treated as above bloom in about twenty days after being put into the water, and it may be changed two or three times. In addition to this mode of growing, thousands are grown in shallow pots half filled with water, the bulbs not being cut.

They do exceedingly well, moreover, massed in borders in the garden, and I had a fine display last January grown in this way.

There are only two kinds that I have yet come across—the single Tazetta and double-flowered (much resembling the double Roman), and they are grown and sent out indiscriminately. With none of the home kinds to compare with I should not like to hazard an opinion as to which of the various kinds the single form most resembles.

CROCUSES IN THE GRASS.

Some years ago I planted some Crocus bulbs of various colors in an old hedge-row where the grass grows rankly. I did this just to prove the truth of the statement that I have more than once seen made, that this bulbous flower will not live among herbage. The result of my experiment was that the bulbs flowered very well for three or four years, and would probably be in good condition there now, but that they were at length dug out by some boys. This seems to prove that Crocuses may be classed with those bulbous flowers that are suitable for naturalizing in the grass. I found, however, that the rate of increase was very slow, but I think that this is the rule with bulbous flowers in the grass. It is noteworthy of Daffodils, for instance, that whilst in gardens they soon grow into crowded clumps and need transplanting every now and then, they never do so in pastures. This is an advantage, as the bulbs always have enough room and so bloom regularly. Soil may influence the Crocus to the extent of causing it to fail in some places among grass, but that this is not always the case I have now proved, and in no position does the Crocus look so much at home as amongst herbage.

J. C. B., in *The Garden.*

HONORS TO PROFESSOR RILEY.

The recent action of the French government in creating Professor CHARLES VALENTINE RILEY a Chevalier of the Legion of Honor, is a well deserved compliment. Professor RILEY's long researches in applied entomology with a view of protecting American agriculture from insect injury, have often proved of value to other parts of the world; but in few instances have they had such striking and widespread practical results as in France. It was he who discovered that the phylloxera was an American insect, and proved its identity with the French pest. His studies of the American vines, which resist the phylloxera, and the recommendation to use them in France, have been productive of important results, which it is difficult to estimate. So, likewise, in 1884, when a new disease, the mildew, also an importation from America, was beginning to ravage the vines of France, he visited Montpellier, and in an address delivered at a special meeting in his honor, described and introduced a new form of spraying nozzle, which, with modifications, is now universally used by French grape growers in fighting the mildew. In sending Professor RILEY the Insignia of the Order, M. LÉOPOLD FAVE, Minister of Agriculture, wrote: "In conferring this high distinction upon you, the French Republic has sought to show its indebtedness for the important services which you have rendered to the general agriculture of all countries, and particularly to France, by your labors and discoveries. I consider it a personal honor to have had the occasion to confirm to our Chief Magistrate the excellence and importance of your services." M. TISSERAND, Director of Agriculture, wrote at the same time, to Professor RILEY, as follows: "It is a small reward for your services, and would have been granted long ago had you not declined to accept the honor. France is but paying an old debt of gratitude, and I am most happy in knowing that the importance of your work is thus recognized."

Gardeners' Chronicle.

CHINESE FLOATING GARDENS.

In a recent number of the *China Review*, Dr. MACGOWAN describes the manner in which floating fields and gardens are formed in China. In the month of

April, a bamboo raft, ten feet to twelve feet long and about half as broad, is prepared, the poles are lashed together with interstices of an inch between each. Over this a layer of straw an inch thick is spread, and then a coating two inches thick of adhesive mud taken from the bottom of a canal or pond, which receives the seed. The raft is moored to the bank in still water, and requires no further attention. The straw soon gives way and the soil also, the roots drawing support from the water alone. In about twenty days the raft becomes covered with the creeper (*Ipomoea reptans*), and its stems and roots are gathered for cooking. In autumn its small white petals and yellow stamens, nestling among the round leaves, present a very pretty appearance. In some places marshy land is profitably cultivated in this manner. Besides these floating vegetable gardens there are also floating Rice fields. Upon rafts constructed as above, weeds and adherent mud were placed as a flooring, and when the Rice shoots were ready for transplanting they were placed in the floating soil, which, being adhesive and held in place by weed roots, the plants were maintained in position throughout the season. The Rice thus planted ripened in from sixty to seventy, in place of one hundred days. These floating fields served to avert famines, whether by drought or flood. When other fields were submerged and their crops rotten, these floated and flourished; and when a drought prevailed they subsided with the falling water, and, while the soil around was arid, advanced to maturity. Agricultural treatises contain plates representing rows of extensive Rice fields moored to sturdy trees on the banks of rivers or lakes which existed formerly in the lacustrine regions of the Lower Yangtze and Yellow River.

The Garden.

CROSS FROM ROSA RUGOSA.

M. BRUANT, the French rose-grower, who is hybridizing Rosa rugosa, and who originated the variety Madame Georges Bruant, a cross between a Tea and R. rugosa, has this season brought out another hybrid. The flowers are said to be large, semi-double, of a beautiful deep violet-red, deliciously fragrant. The beautiful foliage of the type has been preserved in this variety which has not yet been named.

PLEASANT GOSSIP.

BULBS AND VINES IN GEORGIA.

Permit me to ask the following questions through the columns of your MAGAZINE:

Many of my Hyacinths rot in the ground after blooming, even before the foliage is dead. Is there any way in which to prevent it? My ground is not heavy, and is perfectly drained. Would taking them up earlier, before the foliage was much faded, answer the purpose?

How do you think the *Æstivalis* species of Grapes would do for the south? The Norton's Virginia does well. Could you give me the names of some few of the best varieties of the *Æstivalis* species? The Labrusca family rot badly here.

Do you think the Montbretias are hardy here in northern Georgia? If not, please tell me the proper way to raise them; I have a number of them.

J. T. N., *Rising Fawn, Georgia.*

The remedy proposed for the Hyacinth bulbs will be useless, as to take them up before ripening would greatly enfeeble them. What the cause of that rot is we cannot say. The bulbs do not rot in this locality. The present season in Georgia, which has been unusually wet, has been very unfavorable to many bulbous plants. We would advise one experiment to be made, in the hope of keeping the bulbs sound, that is, to surround them with sand when planting. Plant in good, rich soil, but place some sand at the bottom of the hole made for the bulb, and after setting it in place put sand all around and over it until covered, and then finish off with the soil of the bed.

The Montbretias will undoubtedly prove hardy in northern Georgia, especially if given a covering of leaves. It will be well to make a trial of them and report results. They can be grown in pots where they will not bear winters.

It is true that all varieties of the Labrusca family of Grapes rot badly at the south, and it is only a question of time, probably, when all further trial of them in warm latitudes will be given up. In any region when first introduced they appear to do well for a time, but eventually succumb to the unfavorable conditions of too great heat and humidity. Southern Florida is the locality where their culture has been undertaken latest, and at present it would seem as if they are to prove successful; but this appearance is

probably deceptive, and the vineyardists there will, in a few years at least, learn what many others have already learned of their unreliable character, unless, indeed, the rot can be successfully destroyed by the sulphate of copper solutions, as now expected from the trials made under the direction of the Department of Agriculture.

The varieties of the *Æstivalis* class are less susceptible of mildew and rot, and the best of these are Norton's Virginia, Cynthiana, Herbemont and Cunningham. Herbemont and Cynthiana are good table Grapes, and all of them excellent for wine.

THE BRIDESMAID GERANIUM.

This new variety of the ever popular house plant, the Geranium, is well shown in the colored plate in the present number. The large size, and the delicate coloring of the Bridesmaid, together with its thrifty growth and free-blooming habit, make this a very desirable sort, and it will readily find its way into thousands of collections. In order to have this variety appear at its best, the plants should be well grown into strong, fine specimens, when they will have the vigor to make numerous trusses and expand large flowers. A thrifty plant, finely formed, and exhibiting numerous trusses of these magnificent flowers fully expanded, will be a grand sight, while if poorly grown, weak, and of straggling or unbalanced form, its delicate colors will attract attention only to excite contempt for the cultivator. Give the plant a well enriched loam, heat enough to keep it growing steadily, and a full exposure to the light. Pinch in the shoots from time to time in its earlier stages, to promote free-branching and a stocky habit. Do not let it bloom until it has become strong and shapely, and then it can take on its burden of beauty without restraint. A weekly application of manure water during the blooming season will sustain it to the close. Good culture will secure strong, vigorous plants.

PARIS LETTER.

I have so often mentioned the grace with which the French arrange the flowers of spring, summer, autumn and winter, that I will allude to it now only with the passing remark that they study the disposition of each flower. Each has surroundings to be carefully studied, and will assimilate only with chosen companions. Some flowers stand out alone, and association with others are at variance, and the costliest vase of Sevre or Saxe, or Crown Derby, cannot enhance the beauty of their colors or stand as a background or relief to their most graceful bearing, if placed promiscuously together. I have noticed that the French regard flowers as letter bearers, gifts of love, souvenirs of passing and present events; but their dining and home rooms are not daily ornamented with flowers, and rarely is one seen upon the breakfast table.

In England the home life would be more hum-drum than it is but for gay flowers in their season, lighting up the old dark wainscoting of rooms, and even making cheerful looking the faces which look out of heavy antique picture frames, imperiously over-bearing. Everything Parisian, in shape of basket, vase, or floral stand crosses the channel and finds a ready market in London.

To buy bric-a-brac from every nation and age, do so in London; but don't indulge the mania, for it is a most contagious one, this buying one's pocket empty at the curios' shops, unless you are really educated up to the value of such costly articles, which, if genuine, never decrease in value, and if false deserve the name of rubbish.

The wife of a celebrated New York banker carried a broken nosed vase all day through the streets of Amsterdam, for which she had paid a large price, believing it to be old Japanese; it was cracked and hideously clumsy. Imagine her surprise in passing a florist's, to see the same filled with Hyacinths; upon close examination it was declared to be of the same family, yet she consoled herself that hidden among other porcelain at home it might pass for the real stuff.

The engraving shows a floral basket gotten up for a souvenir, or birthday offering of affection, 1889. Carts, banjos, horns, tambourines have become common, wooden shoes exhausted; vases were never intended to hold flowers, but are excellent for grasses, they appear larger and more massive, so baskets, too, grow commonplace when made of wicker, hence this floral wire one. The under part is of common wire, and the white chenille floral wire is wrapped through and through the spaces. Any lady fond of home decoration can make it and be repaid for the time expended. The draperies are of gilt colored tulle, and the pompon fringe of silk of varied shades. The bars of ribbons are of gold gauze ribbons. It is a regular Camellia basket; Roses will do better in a flat-shaped receptacle. This was placed in the American department of the Paris Exposition, and was full of blush Roses and Ferns. It is needless to add, it had many admirers, as usually the draperies are of costly velvets and plush; this was of delicate, transparent gauze, and I am told is one of the new articles added to goods usually sold by florists. I write this particularly, as I have had letters from the Western States asking me for novelties.



FRENCH SOUVENIR BASKET FOR TABLE DECORATION.

The demand of and for flowers is so great that the business is not and can never be overdone. The world is the same, but the people are becoming more refined by travel and education, hence the demand for flowers will be greater, more especially cut ones; and the rare specimens of Orchids, ever bringing a good price, will, like all choice things, hold their own in the floral market.

A friend, knowing my taste for tropical flowers, sends from the Isthmus of Panama, the Holy Ghost plant in a letter, dried, but beautifully pure, showing the outline of the dove. If this flower would bear transporting, or if it could be successfully cultivated in France, it would become a great favorite.

When I left London, last week, most exquisite white Rose buds were sold at almost every corner for a penny each. Venders of grasses were making money from the sale of Bulrushes, old grasses of the commonest description, immense velvety yellow Marguerites, and blue Corn Flowers, with bursting red Poppies were sold very fast.

Arrived in Paris, where the neat, trim flower women understand so well to sell and arrange the tempting bouquet of flowers, I found profusions of Honeysuckles, and already the first white Chrysanthemums, recalling that summer was declining, and that soon the early Grapes would be here.

The foliage remains ever the same, and one never sees the pretty red leaves which children love so well and are wont to gather in America.

I saw at a Rue de la Paix florist's, a wire umbrella covered with sprays of natural Roses, and could not resist the opportunity of asking if many were ordered. He replied, "My sales to-day are just seventy, at fifty francs each. There is going to be a garden party and the ladies all carry 'floral parasols.'" Does this not seem encouraging to the flower-grower and the florist in America, for fashions will cross the ocean quickly, and it is safe to predict that during the winter months the most costly flowers will be used for home decorations.

Ferns will ever be in vogue, but fewer green plants which filled up gaps, and the few flowers pushed to the front were ever ill at ease. New flowers with stems, and long ones, will be used, and bloom-

ing ones, such as Roses, in mid-winter, and all rare plants will be sent to large American cities to supply the demand.

Southern florists and rose-growers who awaken to this fact and engage in supplying the demand, can be sure that the money will come in while they are sleeping, if they will only make the first grand effort of work, and supply good hot-houses.

Paris no longer seems Parisian; on all sides we hear English spoken in unmistakable American accent, and day time or night time, the same restless, surging crowds, anxious to see all, evidently regretting that tired nature demands rest.

The Exposition is at the perfect point, and the query is, if all wait for September, where will they find a place of shelter? Hotels, *pensions* and furnished rooms are full, and yet, while all complain of expense, the general good feeling and satisfaction is evinced, as regrettably the tourist sighs, buys a bouquet and a newspaper, takes his place in the comfortable railway carriage, and says, "*au revoir*," not adieu.

ADA THORPE LOFTUS.

STITCHES IN TIME.

As in early spring we began to plan for our winter garden, struck cuttings of all fine plants, trained them, pinched out their buds all summer, and repotted them before frost, so now, in autumn, there is much that we may do to lessen the mass of gardening work sure to accumulate next spring, and to keep up the bright continuous cheer of our out-door summer gardens.

Be sure that those gardens in which, after the Tulips and Hyacinths have disappeared, there are still found flowers enough to keep it bright and meet the demand for bouquets and vases up to the blossoming of the midsummer "stand-byes," have skillful and long headed managers. So, to fill up this gap in blooming time, look well this autumn to your English Daisies, see that they are well enriched and well protected from the severest cold of winter—dear, hardy little blossoms. They will endure much with Spartan bravery and cheerfulness. Plant some Anemones, single and double, in one of your mellow, sunny beds, and after the greater glory of the Tulips has departed you may well imagine that their

radiant mantle has fallen upon this bed. *Lilium candidum* and *tenuifolium* come near this time. Don't move them unless positively necessary; but if you must, do it early, for the *candidum* forms its new bulbs in August and September. Be sure to give them a rich, sandy, well drained spot.

Your Pansies and Violets, if the young, spring-sowed plants are set in a raised bed with a southern exposure now, and given only a slight protection through winter, will be in all their glory from early April until the last of June. Sweet Peas and Mignonette, if sown in the fall, will be blooming in May, and if you strike cuttings of Geraniums now and tend them well this winter, they will be ready for bedding and blossoming quite early. With these and others which you might study up from the catalogues, you can surely tide over the early summer gap until the wealth of midsummer flowers come into bloom.

Then, for early autumn, come on the *Salvias* and *Asters*; later still, *Chrysanthemums*, *Tuberoses* and the blossoming of *Dahlias*.

Next spring, you will want some new Roses, and if you live in the country and receive your plants by mail, you know that they must necessarily be small and will not bloom much the first season. If you will forego the uncertain pleasure of choosing from among the spring catalogue novelties, and get your Reses now from the always good autumn list, you can grow them on in your little greenhouse, conservatory or pit all winter, and have fine, strong plants for bedding out next spring. I do not let such Roses bloom in winter, but prefer that they should give their whole time and attention to growing. Rose slips set in boxes of sand in October, and placed in some out-of-the-way corner where they will get plenty of light, are always well rooted by spring, and I find this the surest and least troublesome way and time to root all cuttings of shrubs and hard-wooded plants.

In the south we can delay bulb planting until November, and as all the bedding plants will then be frosted and worthless, can then thoroughly dig and enrich and drain the beds before setting the bulbs. Thus the bulbs get the benefit of the fertilizer without being dis-

turbed in spring. Bedding plants live out their allotted time and display their beauties as long as possible, and if the fertilizer should happen to be too raw, it has time to decay and mellow into the soil before the fierce summer heat.

One's ingenuity is often taxed to keep moles away from toothsome bulbs. A friend of mine tried to fence them off by planting *Tigridias* and *Tuberoses* within sunken sections of tile, but after a fair trial assured me that if the tile was sunken too deep for them to go under it, they would come up and go over the top. I do not think you can sink them so deep—without burying them forever—that moles cannot go under, but I have not much faith in their climbing over the top of the tile three inches above ground. My way is to dig a hole a foot deep, square or round, as it is to be filled by box or tile, fill in the bottom with flat, closely packed stones, set in the mole-fence, and fill with soil and plant. Moles will not push up through the stones, and the latter will also serve for drainage.

The leaf-mold, sods, fertilizer and sand which is to be used for potting soil during the winter and spring, if mixed and put under cover during August or September, will be in fine condition when needed.

LENNIE GREENLEE.

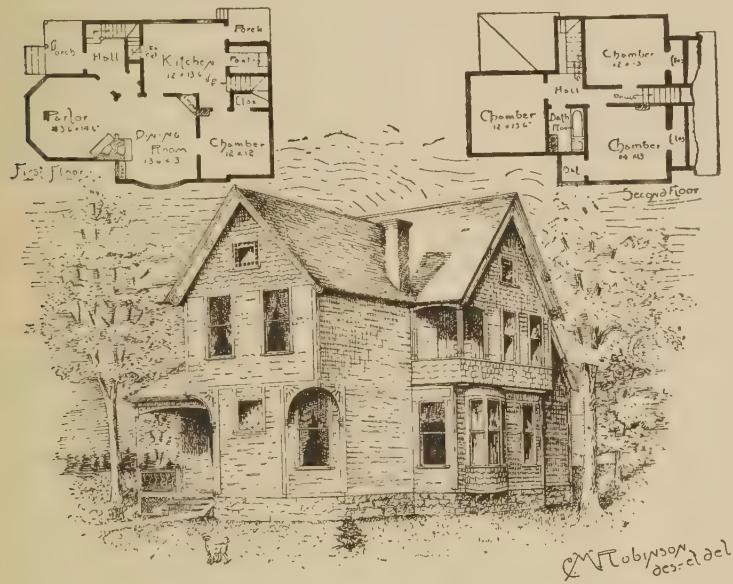
A GOLDENROD WEDDING.

A correspondent sends an account of a recent event in Rhode Island, which is called a Goldenrod wedding, because the Goldenrod was used for decoration. "It was put everywhere, up stairs and down, on the steam radiators, the mantel shelves were banked up to the ceiling, and no other flower was to be admitted to grace the wedding of the beloved daughter. The decorations were all ready but one shelf. A friend was at the door with a basket of *Asters*, and, as it happened, the mother answered the ring. 'O,' she exclaimed, 'how beautiful.' They were brought in and banked on the empty shelf, a solid mass of rich, many colored *Asters*, white ones prominent in the arrangement. The bride stood in a large bay window under the arch, the whole resplendent with Goldenrod; a marriage bell of the same flowers hung above her head. She wore a heavy white silk dress with the least suggestion of blue in it; it was cut half low and filled

in with point lace, and a solitaire diamond added its sheen to the attire. Altogether it was a beautiful sight."

A SENSIBLE COTTAGE.

This little gem of a house was designed particularly with reference to convenience and economy. The requirements



were, a parlor, dining-room and chamber on first floor, besides kitchen. Two stairways, bath-room and three chambers on second floor, with plenty of closets and pantry-room. The family kept no girl, and so it was best to have the house as compact as possible; with this end in view, the kitchen was placed directly back of front hall, and is only a few steps from any part of the house. While this saves a vast amount of extra steps to the tired wife or mother, it does not make the kitchen too prominent. The closet between chamber and kitchen cuts off all noise and smell, and the back stairway permits any part of the house to be visited from any other part without disturbing parties in other rooms. The bath-room is convenient to all rooms. There are large closets in all the bed-rooms. The parlor and dining-room is so arranged as to give a very pretty effect, and at the same time be most convenient. Cathedral glass is used in the front door and transom window in parlor. The chimneys can be reached from all rooms, if it is desired to heat by stoves. The cellar extends under about two-thirds of the house, and con-

tains an ash-pit for the grate in parlor. This grate is so arranged as to heat the bed-room directly above it. In fact, I consider this house to be both practical, economical and beautiful. I have built one from this plan, balloon frame, the best of Pine lumber, paper lined, sash weighted, fire-brick chimneys, containing mantle, grate, plumbing and hot water heating. The interior finish, except doors on second story, of natural antique and watered Oak, with Oak floor in hall. The exterior is very pretty, and is stained with creosote. The total cost of this house, ready to occupy, finished and completed in this manner, was two thousand one hundred dollars. It would probably cost a little more to duplicate in other localities.

C. M. ROBINSON, *Philipsburg, Pa.*

REVIEW NOTES.

In the last number of your MAGAZINE, L. B. PIERCE brings to light other days. I, too, got one of those big chests, I would call it, forty years ago, that Strawberries were shipped in then to Philadelphia from Lebanon, Pennsylvania, and they seemed to answer until my berries were sent into the town in better condition. I still have one of them, which is now used as a wood chest.

The first quart boxes I used I had made by a carpenter, of three-sixteenth-inch pine, and they cost me three cents each. Once I had one hundred of them when the berries began to ripen, and strict orders were given for them to be returned, but at the end of the season we could only count seventy-six. Strawberry boxes are cheaper now. I have seen the berries sent in common starch boxes with one end knocked out, and the berries in a mass put into a tin quart measure with a wooden paddle, the juice running around loose.

I can easily imagine the pleasure Mrs.

LA MANCE receives from flowers, besides giving them away. Scarcely a lady leaves my place, and we have many visitors, without a bouquet, and if not a bunch of flowers, at least a Star of Lyons, Marechal Niel, General Jacqueminot or Triumph of Luxembourg Rose as a corsage or other decoration.

While on Roses, I would say that my Vick's Caprice is acting somewhat capriciously, as it has not given me one flower yet. Early in summer it was forming a bud, but the stem got broken six inches from the top. This I took buds from and set them in a strong stock, and now have four shoots, each over two feet long and growing fast, which may yet give us a few flowers this fall, as our season runs several weeks later than with you.

Referring to Strawberry notes, page 289, I will say that I had Bubach, the past season, that one could easily pick twelve quarts in one hour, and not hurry; and here is my opinion of this berry on sandy loam. Taking all things together, I deem it the most profitable Strawberry on the whole list.

As to the English sparrows, "forewarned is forearmed," and here we have twice cleaned out this pest when they thought themselves established. Along the cliffs here they would have an admirable place to build and make their winter quarters. Six miles from here there is a thriving colony of them, and a man protects them. I told him recently that he would rue it before long.

I have eaten the Idaho Pear, and can endorse what *Garden and Forest* says, besides it seems blight proof with me. It has no seeds, and the mere show of a core. You can judge of my faith in it when telling that eleven trees of Le Conte, three years old, were all grafted with Idaho last spring.

To save any trouble to others writing for trees or grafts to me, I will state that I have none to dispose of, as it is simply in my care to test and grow for my own use.

S. MILLER, Bluffton, Mo.

HOW I BUY BULBS.

To those who, like myself, have not much room or money for flowers, I wish to relate my experience. One fall, I sent for one hundred unnamed Hyacinth bulbs for forcing. I went to a pottery and ordered four-inch pots, in which I

potted the bulbs when received, and put the pots away in the cellar, watered when necessary, and about the first of January brought the first one to the light. I soon had plenty in bloom, and let my friends know that they were for sale. I sold more than enough to cover expenses and had several left to plant in the garden. Since then I send every year for a supply of bulbs, Tulips and Crocus as well as Hyacinths, and though these last do not sell as well as Hyacinths, they make a good show, and all which are left over can be used in the garden. I hope some others, who have not done so, will try this way, and I am sure they will be rewarded.

H. D. M., East Saginaw, Mich.

TRANSPLANTING EVERGREENS.

Referring to what W. C. STRONG wrote in regard to planting evergreens in August, as noticed in our last number, JOSEPH MEEHAN confirms the statement in a late number of *Garden and Forest*. He says:

It is undoubtedly one of the best months in the year for the purpose, and, let me add, that deciduous trees can be planted to advantage much earlier than they usually are in autumn. There is no need of waiting for the fall of the leaf. If transplanted in September such trees would not only do well, but, in very many cases, they would do better than if removed later. A transplanted tree bears some analogy to a cutting. The propagator, in a greenhouse, knows, when he puts in a cutting, that the sand in which he inserts it should be warmer than the air, and so he gives bottom heat. When a deciduous tree is planted in September, the earth and air are in much the same relative condition as is desired for the greenhouse cuttings. The warm ground forces out fibers at once, and when cold weather sets in the tree is well established, having an abundance of roots to help it through the winter. This is not a mere conjecture, but something that I have tested many times. If any reader, for experiment's sake, will transplant a small tree early in September, and dig it up again in October, the number of new fibers which have been formed will probably surprise him. If trees are planted before the leaves have fallen, these should be pulled or cut off.

SHIRLEY POPPIES.

Lighting lawny places, see them float and flare,
Brilliant blossom bubbles, lightly tossed in air,
Happy Shirley Poppies, happy eyes that see
All their lightness, brightness, grace and gayety.

Carmine cups and crimson, rosy cups and white,
Chalices of color fabulously bright,
Salmon-pink and scarlet, curled and crimped and
fringed,
Every trembling petal exquisitely fringed.

Every clear corolla, with its head of gold,
Spilling yellow pollen o'er the circling fold;
Every glowing blossom lifted to a height
Brave and tall and stately, for the heart's delight.

All its plumy leafage flowing into grace,
Filling molds of beauty set in airy space;
Drowsy buds a-nodding, dreaming of their hour,
Lovely Shirley Poppy, airy, fairy flower.

A. S. H.

TRAINING A LANTANA.

Please tell me what method I have to pursue to raise or train a Lantana to a standard, and how to prune it, and when? Also, how to winter the plant, so as to keep it in good condition for the following summer or spring, not desiring it to bloom in winter.

G. G. S., Philadelphia, Pa.

To train a Lantana to a single stem with a head branching at a considerable height, a young plant should be taken, and, by pinching off the side shoots, the growth should be forced into the main or upright stem. This treatment should be continued until the stem is high enough, and then, by pinching out the top or terminal bud, branches will be forced out to form a head. There is no difficulty about it, only attention is needed as the plant grows. The Lantana is kept with the greatest ease during winter, simply by letting it dry off, and ripen its wood and lose its foliage; then it can be kept in a dry cellar until ready to start in spring.

VARIETIES OF BLACKBERRIES.

A late Bulletin of the Ohio Agricultural Experiment Station, publishes a full account of trials of small fruits made there of Strawberries and Raspberries, also the following notes on Blackberries, by O. W ALDRICH, living a few miles from the Station grounds, made from observations on his own grounds, where he has a very full collection:

Agawam. Fairly hardy; only moderately productive. Berry medium size, smooth and uniform; looks well in the baskets. Very sweet, but rather insipid. (Although somewhat insipid and lacking in character, the Agawam seems to suit the majority of those who have tested it at the Station better than

any other variety grown here. It is not sufficiently tart for culinary purposes, but when eaten fresh, with or without sugar, it would be ranked as very good by many.)

Ancient Briton. Has stood the last two winters uninjured. A good grower and quite productive. Berry above medium, fair quality; has some core.

Bernard. Uninjured by last two winters. Not productive enough. Berries quite large.

Bonanza. Injured but little for three years; quite productive. Resembles Kittatinny.

Brunton's Early. Resembles Early Harvest, but is pistillate, and the berries are not always perfect.

Crystal White. Good quality, fair size, but too tender, killing back badly nearly every winter. Needham's White is nearly identical in plant and fruit.

Dehring. Fairly hardy, but quite small and unproductive.

Duncan Falls. Fairly hardy and productive. Berries medium size and of fair quality.

Dorchester. Has stood the last three winters. Fairly productive, good size.

Early Harvest. The earliest Blackberry. Has produced good crops last three seasons, although it has killed back some at the tips. Berry medium in size, very uniform and smooth; very glossy and attractive in the basket. (This variety has the reputation of being tender, but it is one of the most reliable at the Station. The tips of the canes are frequently killed, but seldom enough to seriously diminish the crop.)

Early Cluster. Stands the winter fairly well. Moderately productive. Berry above medium; quite sour; with hard core. No earlier than Snyder.

Early King. Perfectly hardy here. Ripens next to Early Harvest. Berry about the same in size, but not so attractive in appearance, of good quality, but too soft for shipment. (This variety has not passed the winters on the Station grounds so well as the Early Harvest.)

Early Wilson. Kills back too badly for this locality,

Erie. Has killed back slightly at the tips, but is bearing a large crop this season. Fruit large, round, rather sour, and large core. Quite distinct from Lawton. (Although growing near plants affected by the rust, the Erie showed no signs of the disease. The plants seem to be healthy and very productive on the Station grounds, but less hardy than Snyder, Ancient Briton and Agawam.)

Freed. Quite hardy and productive, but late and too small for profit.

Hoag (from Minnesota). Hardy, but too small.

Hoosac Thornless, Newman's Thornless and Wachusetts, are all too unproductive, bearing but little fruit, and that of small size.

Kittatinny. Not hardy on cultivated soil, and quite subject to rust when grown in sod.

Knox. Stands the winter well. Fair size and quality. Moderately productive.

Lawton. Not hardy, but of largest size and very productive when not winter killed.

Minnewaski. Not quite hardy, but in favorable seasons very productive. Berries large and of good quality. (On the Station grounds this variety is not quite hardy, but seems to be less tender than Kittatinny and Erie.)

Nevada. About equal to Minnewaski in hardiness. Quite productive, of fair size and excellent quality.

Snyder. Hardy, productive, of fair quality and medium size. (This is the only perfectly hardy va-

riety thus far tested at the Station. It does not, however, greatly excel Ancient Briton and Agawam in hardness. The three are about equally profitable here.)

Taylor. Quite hardy, late and fairly productive. Berries medium in size, attractive in appearance and of excellent quality.

Warren. Fairly hardy and quite productive. Berry about like Snyder in size and quality.

Wallace. Vigorous in growth; quite hardy and moderately productive.

Wilson, Jr. Too tender and not productive. (It fruited at the Station for the first time this season, having winter killed each season previously.)

Windom Dewberry. Hardy, but too small and of poor quality.

VICK'S PRIZE VEGETABLES.

The large exhibition of garden vegetables at the New York State Fair, at Albany, was a most satisfactory feature. Over one hundred collections were presented in competition for the Cash Prizes which we offered through the GUIDE this year. The entries, which were required to be made early in the season, were many more than the number mentioned above, but local causes, such as drought in some cases, wet weather, hail, and frost in others, prevented the display of some of them.

The specimens presented were very fine, and required nice discrimination in judging. The following letter from the judge in this department, Mr. E. G. FOWLER, editor of the Orange County Farmer, reveals to some extent the difficulties of the task in awarding the premiums :

Port Jervis, N. Y. Sept. 18, '89.

OFFICE ORANGE COUNTY FARMER.
MESSRS. VICK:

"Let me congratulate you on the exhibit of vegetables which your liberal offer of prizes brought out at the New York State Fair for 1889. It was by far the best and most attractive exhibit in its line, and in many respects one of the most interesting features of the whole Fair. But it was not to congratulate you that I pen this note. I desire to say a few words in relation to the task of judging the exhibits, which was very unexpectedly assigned to me. And first, let me say that I knew nothing as to the personality of the exhibitors—they were all veiled under numbers intelligible to you, but which gave me no information. I never had a more difficult task in my life, especially with the Potatoes and the Tomatoes, because of the very high

character of the exhibits. In judging the Potatoes, I was governed by three points—size, regularity of shape, and smoothness. There were exhibits larger than the one which secured second prize, but they were irregular in shape or were possessed of defects in the shape of scab, and in such a magnificent lot it required very few blemishes to deprive them of a prize. The lot receiving first prize was the most beautiful I have ever seen, and would score perfect on every point. The lot receiving second prize had not a single blemish.

In Tomatoes, I began by rejecting those which were manifestly defective until I had reduced the number to about a dozen. To further reduce them I was obliged to throw out lots in which cracks at the stem were notable, and I was thus enabled to reduce them to four, when the scales were called into requisition, and weight settled the question. I cannot forbear from making special mention of exhibit No. 66, which received no prize, but were twelve most beautiful specimens, each one perfect, and deserving the highest praise. If you will send me the exhibitor's name and address, I will be pleased to send him the Orange County Farmer for a year, as a mark of appreciation of his skill.

I trust my judgment will be satisfactory—at least, I endeavored to make it absolutely impartial. But it was a difficult task, and I hesitated about assuming the responsibility. Again congratulating you, and through you the contestants for the magnificent exhibit, I remain,

Yours respectfully, E. G. FOWLER.

PRIZES AWARDED :

TOMATOES.—First Prize, Mrs. J. F. STILL, Salix, Pa. \$50.

Second Prize, J. C. HOWARD, Irondequoit, N. Y. \$25.

POTATOES.—First Prize, JAMES WEST, Rochester, N. Y. \$50.

Second Prize, FRED. A. SMITH, Perry Center, N. Y. \$25.

CELERY.—First Prize, E. GORHAW, Hastings, Mich. \$50.

Second Prize, JAMES WEST, Rochester, N. Y. \$25.

MELON.—First Prize, STEPHEN BARTHOLF, Barnards, N. Y. \$50.

Second Prize, THOS. MIDDLETON, Muscatine, Iowa. \$25.

- CAULIFLOWER.**—First Prize, A. J. RUDMAN, Greece, N. Y. \$50.
 Second Prize, E. VAN ALLEN, Bethlehem Centre, N. Y. \$25.
- CABBAGE.**—First Prize, ARTHUR SYDNEY, Ithaca, N. Y. \$50.
 Second Prize, J. C. HOWARD, Irondequoit, N. Y. \$25.
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PEAR LEAF BLIGHT.

French Pear seedlings hitherto depended on as proof against the disease, having succumbed to its attacks, compelling the nurserymen to seek seedlings of the Japan Pear for propagation, any efficacious and not too costly remedy will be warmly welcomed.

Professor B. T. GALLOWAY, Chief of the Section of Vegetable Pathology, United States Department of Agriculture, has recently succeeded, as the result of practical experiments, in providing a remedy which he feels justified in recommending to the public as both efficacious and economical.

Full details of experiments will be found in Circular No. 8 of the Section of Vegetable Pathology, issued by Professor GALLOWAY. Those desiring to receive a copy should send in their names without delay.

THE DETROIT EXPOSITION.

I send you a few notes from the Detroit Exposition. The Michigan Agricultural College show mechanical tools, wood work, drawings, etc., the work of the students of that institution. They also show a fine collection of insects that are destructive to plant-life, trees, etc. Their experimental crop of grains and grasses that are raised on the jack pine lands at Grayling, Mich., are good, some specimens of Timothy measuring over three feet in height.

In vegetables the College show 120 varieties of Tomatoes; among the reds the Acme, Trophy and Volunteer stand out prominently, and among the yellows Golden Queen and Jaunne Grosselisse were the finest looking. Among Potatoes they show about one hundred plates, noticeable among which were Ohio Jr., Empire State and Green Mountain.

By the looks of the Apples on exhibition from the different parts of the state, the Apple crop must be a success in this

section. The exhibit in Apples, Pears, Plums and Peaches is very fine, but there are no Grapes worth mentioning.

A special feature in horticultural hall is the southern fruits, Florida showing Japan Persimmons, Guavas and Bananas, and Georgia showing Pears, Japan Persimmons and Pomegranates. S. Taplin, and John Breitmeyer & Sons, of Detroit, have fine collections of Palms, Dracænas, Begonias, etc. James Vick Seedsman shows Gladiolus, Dahlias, Phlox Drummondii, Perennial Phlox, Asters, Zinnias, Cockscombs, etc. There are over 3,500 plates of fruit on exhibition.

F. W. V.

COPPERAS AS MANURE.

A correspondent of the *Revue Horticole* mentions one effect of a solution of copperas used in watering the soil where the Heliotrope is growing. The flowers of such plants were cut and placed in water, where they remained ten days without the water becoming bad, and the flowers at last fell without becoming dry and without the withered and faded appearance so disagreeable usually in the case of cut flowers of the Heliotrope. An account of the use of sulphate of iron as manure was published on page 273, volume XI of this MAGAZINE. We hope some of our readers will verify the statement made above.

THE WILDER PEAR.

A specimen of this variety was received from CHARLES A. GREEN on the first of August, and on the seventh, a week later, it was found to be in good eating condition. It is a really good Pear. For very early use it will be held in high esteem when better known.

BLACKBIRDS AND BOLLWORMS.

The following statement was contributed by L. M. BONHAM, of Columbus, Ohio, and published in a late number of *Insect Life*:

My field of Corn was in full roasting-ear, and the blackbirds were swarming in it. My hired man came to my library and told me we must get some boys with guns to shoot blackbirds, or they would ruin my Corn. He added, "The neighbors are all in their cornfields shooting to drive away the blackbirds." I told him to wait until I had time to see what the blackbirds were doing. On entering the field there were enough blackbirds in sight to have ruined the field of Corn in a short time. I spent an

hour or more in the field of twenty-four acres, and did not find an ear that showed the birds were eating the Corn. The birds would light on the ears, and spend but a short time there, and pass to another ear. I noted ear after ear that I had seen a bird on, and I always waited until the bird had finished his work on it. I found on every such ear the marks of the bollworm. They were developed enough to have commenced eating the grains. There were the evidences that the worm had been there, and I saw the blackbirds there, and making passes as if picking out the worms, and after the bird had left the ear I could find no worm. The birds seemed to be busy hunting and eating this destructive and disgusting pest. I left the field pleased and grateful to the blackbirds. I told my hired man he need not waste any time or powder on the birds. They were welcome to hunt worms, and could take what Corn they wanted to make a variety. Now, this is not sufficient to show that blackbirds are in the habit of feeding on the bollworms, I know, but it satisfied me that the birds were destroying thousands of them for me. The season was dry, the meadows were short, and the grass dried on the hillsides overlooking my bottom fields. The conditions were these: Corn in full roasting-ear, the earth dry, and the weather hot. The Corn at husking time was not injured by birds more than usual, which is so light as to be almost inappreciable. I hope I may have opportunity this season to make further observations, and that the good work of the blackbirds may be established by many witnesses.

HONOR TO WHOM HONOR.

The exhibitor, number sixty-six, mentioned by Mr. E. G. FOWLER, the Judge of the vegetables at the New York State Fair, in his letter published on another page of this issue, is Mr. WILLIAM GEDGE, of Stuart, Iowa. For his display of fine Tomatoes, Mr. FOWLER proposes to send Mr. GEDGE, as a token of appreciation, a copy of the *Orange County Farmer* for one year. We, also, will, by a similar sign, send VICK'S MAGAZINE to his address for the same term. But as we do not wish to discriminate between exhibitors, who all did well, they will all be treated alike, and will be sent the MAGAZINE to the close of 1890.

ROOT LICE ON ASTERS.

One of our readers in Nebraska, Mrs. M. E. S., wrote us early in August, that a small insect infested the roots of her plants of Aster; that they "look like the green aphis, only they are not green. The plant wilts at the top, and when it is pulled up it is covered at the roots with the insects." Again writing, the latter part of the same month, she says: "I put a large quantity of wood ashes around each plant and waited for the result with fear and trembling. We had

several showers after that. I do not know if it was the ashes or the rain, but the plants came out all right, and such beautiful flowers!" There can scarcely be a doubt that in this case the ashes killed the lice, and we advise our readers who may have a similar trouble to try the same remedy, and report the effects.

HOUSE PLANS.

The very pretty and convenient design for a house, illustrated and described in this number, is from the architect, Mr. ROBINSON, who will cheerfully give any information in regard to it, or any changes that may be desired from it, to any one who may address him at Philipsburg, Centre County, Pennsylvania. Other designs by will be given in future numbers.

BRAZILIAN MORNING GLORY.

Of vines there are "many and many." The one destined to become the most fashionable for a few years, I think, is Brazilian Morning Glory. I know that if I had a great place that I wanted covered up with vines in a few days, I should get Brazilian Morning Glory. This spring I set a three-inch plant ten feet from a large Pecan tree. As the weather was very dry, I left it then till I could get a frame made. Sorrow became our guest all the spring, and the vine was uncared for; it crept on the ground to the Pecan tree, and the latter part of May it began blooming near the ground and upwards; now the whole Pecan tree is a mass of vines, flowers and curious seed-pods. I asked "that husband of mine," how tall the Pecan tree is? He answered, "forty-five feet;" so you can have some idea of the immensity of the vine. Many of the leaves are a foot across, scolloped like Grape leaves; the flowers are about three inches across, narrower in the throat than common Morning Glories, and are a deep, rosy purple shading to mauve. The seed-pods are unlike anything I have ever seen; they are in clusters, branching like claws, a dark, shining, waxy seed-pod, half an inch in circumference at the end of each claw, generally about fifteen pods to each bunch. The seeds when ripe are dark brown, nearly black, with a tiny silk band around each seed, four seed to a pod; in shape like Moon Flower seed.

The Brazilian Morning Glory, vine and leaf, is covered with short, red-brown, soft hairs, that, with the peculiar seed-pods, give it an interesting appearance. Insects do not injure these vines.

M. E. C. P., *Baton Rouge, La.*

THE BORDEAUX MIXTURE.

An article in a late number of the *Rural New Yorker*, from M. H. BECKWITH, Horticulturist at Experiment Station at Newark, Delaware, gives account of the use of the Bordeaux Mixture in a vineyard in Kent County, whereby the fruit was saved from the black-rot, the spraying being repeated every ten days, while the fruit of neighboring vineyards, where only one or more applications were made, was destroyed. But, where the fruit was saved, the copperas mixture adhered to the fruit and prevented its use; the rains, which had been excessive in that region the past summer, failed to wash it off. The writer continues:

"The owner of the vineyard was of course very greatly discouraged, and wrote to the director of this station, who at once visited the vineyard with the view of devising some method of removing the mixture from the fruit. Upon trial it was found by adding a small amount of cider vinegar to the water in which the Grapes were placed and allowed to remain a few minutes, and afterwards rinsing the fruit in water, the adhering mixture could be entirely removed. The method pursued in this case was to use one quart of strong cider vinegar to five gallons of water. The fruit was placed in wire baskets which would contain about twenty pounds. By using two baskets and placing the second in the vinegar-water when the first was removed, and allowing it to remain there while the first basket of fruit was rinsed twice in water, and the Grapes spread upon evaporator frames or other receptacles to dry, then the second basket of fruit would be ready for rinsing. Acetic acid could be used if desired instead of the vinegar. The fruit treated in the above manner was rendered perfectly wholesome and merchantable, and the expense is light." What kind of "merchantable" fruit is this after passing through such processes? As we know the market it would not be considered salable; nor if the

public knew it would there be from them any demand for such fruit. If the rains of this season will not wash away the spraying mixture, then we think our vineyards have finished with it before they have commenced.

In the last issue of the *Country Gentleman*, L. B. P., writing of Horticulture at the Ohio State Fair, gives an account of a meeting of the State Horticultural Society while the Fair was in progress; among other statements he makes the following;

"A general discussion of grape-rot and mildew preventives revealed the fact that the Bordeaux mixture was more effective than the *eau celeste*. Applied to Plums the fruit retained copperas stains for ten weeks, and required washing. Prof. WEED called attention to the danger of applying copperas mixtures to Apple trees. Both leaves and fruit suffered from spraying with Bordeaux mixture for the leaf blight."

This warning has come none too soon, and we hope to hear more fully on this subject from those vineyardists who have had most experience in spraying with the Bordeaux mixture; there is no great number of them, but certainly by this time those who have tried should be able to say if the solution adhered to the fruit.

"MYSELF."

On account of the great amount of work on the plates, we have not yet been able to put samples of this beautiful publication in the hands of those of our friends who propose to obtain subscriptions for it. It is, however, expected very soon, and will be sent out at the earliest possible moment. In our next issue we shall have an announcement to make for the interests of all those who act as agents of the MAGAZINE; notwithstanding the liberal rate of commission fixed upon, we shall also offer a premium to the one who obtains the largest number of subscribers.

At Post Offices where no agents are yet appointed, our readers, one at each office, will do well to notify us, and accept an agency. The work should be commenced now and kept up for three months. Please write for information and terms.

OUR YOUNG PEOPLE.

HEIRLOOMS OF TALE AND ANECDOTE.

Clarence and Kathleen found it no easy matter to get Grandmamma Raymond all to themselves again, but when once they had done so, they made such a flourish of pencils and note books, assuming attitudes so expectant, that there was no mistaking their meaning.

"Stories again, is it?" she smilingly queried: adding, to assenting responses, "Many of them are not easily recalled, except as some passing incident brings them to mind. They refuse to come trooping in a body upon demand. For instance, the disparity of years in the newly married couple, I heard you mention this morning, recalled an incident in my paternal grandmother's experience which she told me herself."

("Our great-grandmother, Clarence.")

"She said that a neighboring farmer married a girl fourteen years of age, and took her to his home to assume the duties of a farmer's wife. One day when there were to be hired men to dinner, some of her old companions came to see her. The poor, home-sick child was perfectly overjoyed to meet them, and, wishing to entertain them after their old likings, when she saw them ready for a romp she took them to the spacious barn. But, first, she removed her pumpkin pies from the brick oven lest they should not only get done, but dry up in her absence, and in her excitement placed them on chairs near at hand, to be quickly returned to the oven as soon as she should get back. But in such delightful company she was soon her old self again—an irresponsible, light-headed lass, without a thought of care; and the time, alas, flew by unheeded.

"When the noon hour came, the farmer and his men went to the house for dinner. The kitchen door stood open, and pigs had taken possession. What was left of the pies was daubed over the floor, and the swine were squealing and grunting for more. The irate man went to the barn and found his wife and her friends having a gay time, climbing to the beams

in the loft and jumping down into the hay-mow. He sent the visitors away and then took his little girl-wife in hand and whipped her."

"Oh, oh."

"Yes, whipped her, my grandmother said, and the hired men told of it. 'When I heard it,' said she, 'I made it my business to see him and express my mind on the subject. I said to him that when he chose a child for a wife he ought to have remembered that her playtime was not over yet, and that he had no right to expect of her the sobriety and staid demeanor of a woman. I assured him that his treatment of her had been unmanly and cruel, and that his neighbors were justly indignant.'

"My grandmother was a fine looking woman, of commanding presence, and I imagine that the man stood in proper awe of her while receiving the merited rebuke. It would seem that amongst the irreligious class in those days there was a sentiment favoring the 'breaking in' of certain wives, on the same principle they did their horses.

"This story, by the way, reminds me of another heartless husband, whose wife told the tale herself to my maternal grandmother, and my mother told it to me. The poor woman said that her husband became so stern after marriage that she was half afraid of him, and, finally, when a year and a half had passed by without her having seen her old home, she became so wretchedly homesick that she ventured to ask several times how soon he would take her to visit her father's. At length, he told her, one day, that they would start the next morning. So, with light heart, every leisure moment was occupied with busy preparation, until at last the little hair trunk was locked fast, long after husband and child were asleep.

"After an early breakfast, with her babe in her arms, she at last realized that she had started for the dear old home. She was soon disturbed, however, by her

husband turning into a narrow wheel-way that led into the heart of an extensive pine woodland belonging to himself, and which was intersected with numerous 'wood'-roads. She concluded he must want to see a 'chopper,' or had other excuse, and having long before learned to ask no questions, she remained silent until she noticed that they were going over the same ground again and again. Then she ventured to inquire his object. He stuck his face down in her bonnet, and whined out :

" 'I'm takin' you to f-a-a-ather's.'

("'Sh——, don't speak yet; let me get through.)

"At the end of an hour she begged him to drive out of there and go on and waste no more time. Again he stuck his face down, and said :

" 'I thought you wanted to go to f-a-a-ather's.'

"'Sh——, I'm not done; wait. Toward noon he halted, and, getting the luncheon basket from behind the seat, said he guessed it was time for dinner; then fell to eating voraciously, telling her to help herself. But she knew she could swallow none of that dinner. She had prepared it with nimble fingers that thrilled with the thought of going home, while a song of her childhood was singing itself in her soul. She had imagined how good it would taste at the half-way stopping place on the road that lead to mother-love and father-love. She had even felt pride in thinking how pleased they would be with their first grandchild. And now she only wished that she could die right there and then.

"After her husband had rested himself by a walk, he returned to the wagon, saying, 'We must be going on again,' and took up the lines and drove on the same round for another two hours. Finding that she would no longer remonstrate with him, he remarked that if she was satisfied with going to fa-a-ther's at last, he'd return home on account of the horses, which needed to be fed. Then leaning down he kissed in her face, 'I've had more trouble than this, sometimes, trying to break in a stubborn colt, an' I don't mind it at all. I always git 'em broke in at last, an' if I haint got you well broke in yet from wanting to go to fa-ther's, I'll take you out for another turn some day: 'twont be a

mite of trouble. I b'lieve I rather like it."

"The old wretch!" exploded Clarence. "He ought to be 'destroyed,' as uncle Hiram says."

"If I'd been in her place," said Kathleen, "I'd have scratched his two eyes out when he stuck his hateful face in mine, with those taunting words."

"Had I been in her place," said Mrs. Raymond, "I think I should have taken the baby at my feet while he was off walking, and seizing the reins, I'd have run those horses out of the woods, and have driven to father's in spite of him."

"And have staid there, I hope," added Kathleen.

"I don't know; that depends. Perhaps when he found he had a wife of spirit he'd have changed his tactics. I probably should have allowed him to think for a time that I intended to leave him. But if I had married him of my own free will, and if he were to promise to drop his tyrannizing authority and practice the traits which had at first attracted me, then I probably should have returned to his home. I do not believe in divorces. Except in extreme cases they are sinful. The marriage vow is a sacred one and should be considered binding unto death. If married people who get to fancying they are mis-mated would so conduct themselves as to secure each other's respect, love would soon make room for itself again.

"But I certainly had not thought of giving you two a homily on matrimony. Your words, Kathleen, gave me a little scare, lest from modern precedent you might be fostering loose notions on the subject, and thus I was led into saying what I have. During the next talk we'll have an entire change of subject."

"Let's have it now, Grandmamma," coaxed Kathleen. "You've only told us two stories this time"

"Is that all? Sure enough. Well in the Bible reading, last evening, I was reminded of some anecdotes that a slave-holder (spending his summer in the north, as usual), told about his slaves, and which I heard my father repeat. Independent of whatever wrongs you may read and hear of connected with American slavery, you must remember that there were many humane masters, like the one now referred to. He said he

was so indulgent with his negroes that they were called the laziest lot in the country.

"They were always present at family worship," he said, "and on one occasion an old and much honored slave heard read the parable of the loaves and fishes. When he heard the number of baskets full gathered up, he called out, 'Stop, stop, massah; me don't see few dat.' Then he struck an attitude of deep thought, with fingers buried in his gray wool, while all waited in silence until he spoke.

"'Go on, go on massah; me see few dat now. Dey had lots uv taters.'

"Another slave had once been told to take down a certain bit of high stone wall. Not long afterward his master was passing along on the outside and heard his darkey praying that the Lord would lay that wall as flat as he did the walls of Jericho. So his master commenced pushing over one and another of the top stones, and as they tumbled around him the terrified petitioner sprang to his feet, exclaiming:

"'Massah—Lord—A'mighty, me didn't ink you take me in arrest.'

"On another occasion a slave had represented to his master that the barn was being overrun with rats, and begged to be allowed to spend the day in killing them. Consent having been given nothing more was seen of him until toward evening, when his master went to look him up. Hearing a loud snoring in the loft, he called the fellow until he answered and began to tear around like mad; then he inquired how many rats he had killed, and the reply was:

"'When I catches the one I'se arter now, massah, an' two more I'll have t'ree.'

"It was out of such families as this humane planter's must have been, that certain slaves after the war, having come north, seeking the long-coveted land of freedom and paradise, found themselves homeless, friendless and perplexed by the new ways of living (even the north star seeming farther off than ever), such as these, from the homes of indulgent masters, were the ones who often wished themselves back in slavery again, 'widout a keer for vittles nor clo'es,' as one woman said to me. But the northern negroes soon shamed and frightened them

from saying such words, and they shortly adapted themselves as well as possible to the new life.

"It has long been my habit to read specially appropriate sketches to my house-maids, whether white or colored. One day I read a touching story of slavery life to a colored woman busy at the ironing table. It proved too pathetic for her self-control, and as the clothes were likely to get a second sprinkling, I omitted a portion of it and hastened to the end. But her heart was unlocked thereby, and her previously reticent lips were opened. I suspect a feeling of loyalty to her Kentucky master's family had hitherto kept her silent regarding her past life. She then told me that when she herself was a puny, sickly child, a strong, healthy sister, twelve years old, had been sold, adding:

"'My old mudder's ha't wuh done broke aftah dat. She allus rolled an' cried on de h'a'th fo' dat chile eb'ry bressed night, 'fo' she go to baid, I'se nuffin but a po' sickly brat, an' dey couldn't sell me nohow. Seemed like huh h'a't wur so sot on Philury kaze she were allus chock full o' fun, an' I were allus whinin' wid de misery in my laig. When I'se done got well she kep' me limpin' aroun', jes like I wur lame yet; she that fearsome I git sold, too, same like Philury.'

"She also told me," continued Mrs. Raymond, "about being sent for one day, and told that she was to pick every gray hair out of the head of a darkey whom she saw sitting on a box under a tree. That was to be her day's work. She knew, and the man knew, what it meant. He was to be sold for a larger sum than could be asked for a slave old enough to be gray."

"But, my dears, you must understand that among the best class of slaveholders it was considered disreputable to part families by selling separate members. It was rarely done except where the estate was so burdened with debt that it was considered a necessity. Great lenity of judgment must always be exercised toward those born to the inheritance of bondmen. To them, in their simplicity, it seemed like any other just and natural heritage."

MARIA BARRETT BUTLER.
[To be Continued.]